

Comparison of calculated and measured paleo-sea level using several Earth models and two configurations of PaleoMIST 1.0

As a supplement to “*A new global ice sheet reconstruction for the past 80 000 years*” by Evan J. Gowan, Xu Zhang, Sara Khosravi, Alessio Rovere, Paolo Stocchi, Anna L. C. Hughes, Richard Gyllencreutz, Jan Mangerud, John-Inge Svendsen & Gerrit Lohmann

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1 Purpose of this document

In this report there is a detailed summary, including plots, of a worldwide compilation of paleo-sea level data, and six ice sheet-Earth models. In this particular report, we compare the standard version of PaleoMIST 1.0 (with 2500 year time steps and using a lower mantle viscosity of 4×10^{22} Pa s), a 500 year interpolated version of it, the alternative version of PaleoMIST 1.0, with an ice covered Hudson Bay during MIS 3, plus the standard version of PaleoMIST 1.0 calculated using Earth models proposed by James et al. (2009) (*i.e.* for tectonically active areas), Peltier et al. (2015) and Lambeck et al. (2017). The purpose of the interpolated version is to show that using a more gradual change in the load (since SELEN uses a heaviside function to compute the loading) will reduce the sea level in previously glaciated areas. Which of the two different scenarios for MIS 3 is more likely cannot be discriminated with the available data. Comparing the standard version of PaleoMIST 1.0 with other Earth models utilized in other studies show that our chosen Earth model provides a better fit to the data in formerly glaciated areas. This is unsurprising, since the ice model was tuned to our chosen Earth model.

2 Summary of ice and Earth models

In order to make the figures compact, I have made shorthand codes for the ice and Earth models. I calculate each ice sheet separately, and the numbers refer to the “run number”, which is a sequential number that I used to distinguish git commits (see <https://github.com/evangowan/icesheet>). The ice model numbering scheme is as follows:

“North America”_“Europe”_“Antarctica”_“Patagonia”

For PaleoMIST 1.0, the minimal MIS 3 configuration reconstruction is 72_73_74_75, while the maximal configuration is 82_83_85_85

For the Earth models, I created a shorthand scheme during my PHD, which I have continued to use. A full explanation can be found on the github page:

https://github.com/evangowan/icesheet/blob/prelim/global/earth_model_format_codes.txt

The full description of each model compared in this document is in this section.

2.1 Ice models

72_73_74_75 - PaleoMIST 1.0 - reduced MIS 3 Laurentide Ice Sheet scenario, with Hudson Bay fully deglaciated

72_73_74_75_h - PaleoMIST 1.0 - reduced MIS 3 Laurentide Ice Sheet scenario, with Hudson Bay fully deglaciated. This version uses 500 year time steps, where the ice load has been linearly interpolated between the 2500 year time steps.

82_83_84_85 - PaleoMIST 1.0 - full MIS 3 Laurentide Ice Sheet scenario, with Hudson Bay fully covered, and ice extent much larger.

2.2 Earth models

eb0ggr - 60 km thick lithosphere, 140 km thick low viscosity (1×10^{19} Pa s) asthenosphere, 4×10^{20} Pa s upper mantle, 4×10^{22} Pa s lower mantle

efhC - 100 km thick lithosphere, 5×10^{20} Pa s upper mantle, 1.58×10^{21} Pa s lower mantle – Three layer approximation of VM5 Earth model by Peltier et al. (2015)

efhl - 100 km thick lithosphere, 5×10^{20} Pa s upper mantle, 1.26×10^{22} Pa s lower mantle – best fitting model by Lambeck et al. (2017) for North America

ehgr - 120 km thick lithosphere, 4×10^{20} Pa s upper mantle, 4×10^{22} Pa s lower mantle

3 Paleo-sea level compilations

This is a list of paleo-sea level compilations, which served as the basis for this report. We acknowledge the hard work of the people compiling the data, as well as acknowledging those who collected the original data.

3.1 North America

- Canada and Greenland - A.S. Dyke and T.S. James (unpublished, though some of it was summarized in Dyke and Peltier (2000b))
- Eastern Canada - Vacchi et al. (2018)
- Hudson Bay - Simon et al. (2016)
- Hudson Bay and northern mainland Canada - Gowan et al. (2016)

I have made some changes and corrections from the compilations above.

At Churchill, there is a site, denoted with the radiocarbon date S-738, which was originally assigned to be a marine limiting indicator. It was described in Morlan et al. (2000) as "shells enclosed in gravel in a quartzite ridge". It was originally interpreted as being a sea level indicator, with sea level at around 35 m. Using IMCalc (Lorscheid and Rovere, 2019), and a tidal amplitude of 1.6 m based on the tide gauge at Churchill (Ray, 2016), assuming the landform represents a beach ridge, and including a 20% uncertainty on the original 35 m elevation (to account for the lack of information on elevation measurement), the sea level indicator is 32.8 ± 7 m.

There were many data that referred just to compilations rather than the original sources. I have tried to track down the original sources as much as possible, but in some cases it was not possible, as they were neither listed in the Vacchi compilation nor the Dyke and James compilation.

The compilation of sea level indicators in the eastern United States was done by Engelhart and Horton (2012). Thanks to Simon Engelhart for sending me a copy of the dataset with the reservoir corrections used for marine organisms.

The MIS 3-5 data from the east coast of the United States was compiled by Pico et al. (2017).

3.2 Europe

The Baltic Sea sea level indicators are from (Rosentau et al., 2021). Note that some of the regions that they designated were really large with the gradient of the GIA, so I made smaller regions. This is why the regions in this report do not correspond to theirs in many places. Also note that Rosentau *et al* chose to enter the radiocarbon dates for Ångermanland as pre-calibrated dates. I have not changed them.

Scandinavia sea level indicators are from and unpublished compilation by Jan Mangerud, Kristian Vasskog and Øystein Lohne. Since this compilation is not available yet, the data points are not uploaded to the main Github repository. Some parts of the compilation can be found in:

- Svalbard - Bondevik et al. (1995)
- Northern Europe - Forman et al. (2004)
- Norway - Lohne et al. (2007); Romundset et al. (2010, 2011, 2015, 2018); Vasskog et al. (2019)

The main compilation for the North Sea is by Vink et al. (2007). Though this predates the HOLSEA project, they use the indicative meaning concept and have a rigorous assessment of error, and is compatible with it. For Rotterdam, Netherlands, there is a HOLSEA compilation by Hijma and Cohen (2019). In Langeoog, there is a HOLSEA dataset by Bungenstock et al. (2021). I have also included HOLSEA formatted data from Norderney (Scheder et al., 2022). Western Denmark does not have a HOLSEA formatted compilation, so I added data compiled by Gehrels et al. (2006) and Jessen et al. (2019).

3.3 Eurasian Arctic

The sea level indicators for northern Norway and Svalbard are from an unpublished compilation by Jan Mangerud, Kristian Vasskog and Øystein Lohne (see details in Section 3.2).

The compilation of sea level indicators for northern Russia comes from Baranskaya et al. (2018a). Thank you to Alisa V. Baranskaya for sending the references (including translations from Russian) that were missing from the published compilation.

3.4 Southeastern Asia

The sea level indicators from southeastern Asia were compiled by Mann et al. (2019).

3.5 Tropical Corals

Corals from tropical regions were compiled by Hibbert et al. (2016). In this report, we have taken indicators for Huon Peninsula, Vanuatu and French Polynesia from this database.

4 Summary of results

This is a summary of the results of the modelling. There are a total of six models with which are compared. In addition, these tables give how many sea level indicators, number of marine limiting, number of terrestrial limiting, and number of sea level index points.

The sea level is calculated at the location of each data point. To evaluate how well the calculated curve fits the data point, a score is assigned. This metric was originally used by Gowan et al. (2016). The score is the discrepancy, in number of meters, the calculated sea level falls outside of the constraint plus the error bars. A score is zero if the calculated sea level is consistent with the data point. As an example, if the calculated sea level curve is below a terrestrial limiting point, it is given a score of zero. The sum of the scores for each location for each model are shown in the tables. A warning about the scores is that a lower score does not necessarily mean a better fit, as it will depend on the age distribution of the indicators, and the number of indicators of a specific kind. For example, if there are a lot of marine limiting data points, a calculated curve that is over a hundred meters above those indicators may provide a good score, but it is not necessarily a good fit. As a result, it is a good idea to also look at the plotted curves for visual inspection.

4.1 Australia

Table 1: Number of data points and model scores for Northeastern Australia

Location	number data	marine limiting	terrestrial limiting	index point	72_73_74_75 ehgr	72_73_74_75_h ehgr	82_83_84_85 ehgr	72_73_74_75 eb0ggr	72_73_74_75 efhC	72_73_74_75 efhl
Total	556	54	0	502	1679	1702	1677	2104	2237	1951
Cairns	253	11	0	242	704	705	707	903	1012	812
Mackay	303	43	0	260	975	997	970	1201	1225	1139

Table 2: Number of data points and model scores for Northwestern Australia

Location	number data	marine limiting	terrestrial limiting	index point	72_73_74_75 ehgr	72_73_74_75_h ehgr	82_83_84_85 ehgr	72_73_74_75 eb0ggr	72_73_74_75 efhC	72_73_74_75 efhl
Total	201	106	0	95	662	621	666	614	684	627
Bonaparte Gulf	90	84	0	6	116	88	120	89	95	92
Bonaparte Gulf SLI Yokoyama2000	21	0	0	21	284	307	281	305	347	300
Bonaparte Gulf SLI Ishiwa2019	90	22	0	68	262	226	265	220	242	235

4.2 Caribbean

Table 3: Number of data points and model scores for Lesser Antilles

Location	number data	marine limiting	terrestrial limiting	index point	72_73_74_75 ehgr	72_73_74_75_h ehgr	82_83_84_85 ehgr	72_73_74_75 eb0ggr	72_73_74_75 efhC	72_73_74_75 efhl
Total	197	0	0	197	1182	1196	1165	1669	831	837
Barbados	197	0	0	197	1182	1196	1165	1669	831	837

4.3 East Asia

Table 4: Number of data points and model scores for Ryukyu Islands

Location	number data	marine limiting	terrestrial limiting	index point	72_73_74_75 ehgr	72_73_74_75_h ehgr	82_83_84_85 ehgr	72_73_74_75 eb0ggr	72_73_74_75 efhC	72_73_74_75 efhl
Total	7	6	1	0	0	0	0	2	0	0
Miyakojima	7	6	1	0	0	0	0	2	0	0

Table 5: Number of data points and model scores for Sea of Japan - East Sea

Location	number data	marine limiting	terrestrial limiting	index point	72_73_74_75 ehgr	72_73_74_75_h ehgr	82_83_84_85 ehgr	72_73_74_75 eb0ggr	72_73_74_75 efhC	72_73_74_75 efhl
Total	11	5	0	6	261	258	261	274	268	266
Tsushima-Korea Strait	11	5	0	6	261	258	261	274	268	266

4.4 Eurasian Arctic

Table 6: Number of data points and model scores for Franz Josef Land

Location	number data	marine limiting	terrestrial limiting	index point	72_73_74_75 ehgr	72_73_74_75_h ehgr	82_83_84_85 ehgr	72_73_74_75 eb0ggr	72_73_74_75 efhC	72_73_74_75 efhl
Total	171	22	0	149	1839	886	1834	2033	1393	2452
Zemlya Georga	44	4	0	40	522	234	521	435	337	677
Zemlya Zichy	4	3	0	1	30	42	30	53	53	28
Proliv Markama	123	15	0	108	1287	610	1283	1545	1003	1747

Table 7: Number of data points and model scores for Kara Sea - Novaya Zemlya

Location	number data	marine limiting	terrestrial limiting	index point	72_73_74_75 ehgr	72_73_74_75_h ehgr	82_83_84_85 ehgr	72_73_74_75 eb0ggr	72_73_74_75 efhC	72_73_74_75 efhl
Total	90	8	19	63	390	365	390	482	424	366
Pechora Sea	5	4	1	0	120	102	119	92	70	101
Yuzhny Island	4	1	3	0	0	0	0	39	49	0
Severny Island	19	1	0	18	23	6	23	3	0	24
West										
Severny Island	36	0	0	36	10	12	10	97	91	18
North										
Vaygach Island	3	0	0	3	0	0	0	0	0	0
Baydaratskaya	2	0	2	0	0	0	0	0	0	0
Bay										
Gulf of Ob	11	0	9	2	1	3	1	0	0	1
Khalmyer Bay	5	0	1	4	236	242	237	251	210	222
Kara Sea shelf	2	2	0	0	0	0	0	0	4	0
Ostrov	3	0	3	0	0	0	0	0	0	0
Sibiryakova										

Table 8: Number of data points and model scores for Southern Barents Sea

Location	number data	marine limiting	terrestrial limiting	index point	72_73_74_75 ehgr	72_73_74_75_h ehgr	82_83_84_85 ehgr	72_73_74_75 eb0ggr	72_73_74_75 efhC	72_73_74_75 efhl
Total	54	17	3	34	534	383	533	1930	1258	616
Rolfsoya	5	0	1	4	81	83	81	132	144	69
Norkinn	6	1	1	4	103	85	102	188	192	103
Pechengsky	17	7	0	10	164	98	164	540	287	206
Murmansk	21	8	1	12	171	100	171	851	457	225
Voronya River	5	1	0	4	15	17	15	219	178	13

Table 9: Number of data points and model scores for Svalbard

Location	number data	marine limiting	terrestrial limiting	index point	72_73_74_75 ehgr	72_73_74_75_h ehgr	82_83_84_85 ehgr	72_73_74_75 eb0ggr	72_73_74_75 efhC	72_73_74_75 efhl
Total	179	26	10	143	2082	1280	2080	5958	2773	3329
Bockfjorden	11	8	0	3	177	177	178	117	147	142
Broggerhalvoya	11	2	1	8	402	372	403	405	239	342
Ytterdalen	11	3	2	6	150	171	151	92	109	100
Sorkapp Land	13	3	2	8	107	119	107	101	56	89
Agardbukta	9	2	0	7	18	30	18	157	48	51
Southern Edgeoya	17	1	1	15	210	65	210	681	368	380
Diskobukta	20	4	1	15	138	81	137	650	280	349
Humla	28	1	1	26	415	75	414	1577	720	803
Kapp Ziehen	25	2	2	21	184	94	183	1136	398	480
Svartknausflya	20	0	0	20	97	58	96	638	157	259
Kongsøya	14	0	0	14	184	38	183	404	251	334

Table 10: Number of data points and model scores for Western Siberia

Location	number data	marine limiting	terrestrial limiting	index point	72_73_74_75 ehgr	72_73_74_75_h ehgr	82_83_84_85 ehgr	72_73_74_75 eb0ggr	72_73_74_75 efhC	72_73_74_75 efhl
Total	125	90	23	12	754	807	756	1057	882	863
Severnaya Zemlya	16	5	11	0	275	296	276	355	328	285
West Laptev Sea	10	7	1	2	89	89	89	100	104	96
Olenyok Gulf	29	18	11	0	32	38	32	61	34	42
Lena Delta	60	60	0	0	309	333	310	465	345	384
New Siberian Is- lands	8	0	0	8	10	13	10	7	2	6
Zhokhov Island	2	0	0	2	39	38	39	69	69	50

Table 11: Number of data points and model scores for White Sea

Location	number data	marine limiting	terrestrial limiting	index point	72_73_74_75 ehgr	72_73_74_75_h ehgr	82_83_84_85 ehgr	72_73_74_75 eb0ggr	72_73_74_75 efhC	72_73_74_75 efhl
Total	177	16	41	120	1050	658	1048	7057	3557	1361
Kandalaksha	8	1	0	7	115	56	115	700	316	160
Lesozavodskiy	13	5	0	8	178	98	178	1136	584	230
Rugozerskiy Peninsula	15	1	8	6	24	10	24	533	208	47
Chupa Bay	15	0	3	12	287	200	286	1907	1055	351
Umba	11	2	0	9	190	148	189	1012	599	243
Engozero	8	0	1	7	103	60	103	829	494	134
Belomorsk	8	0	7	1	0	0	0	338	163	0
Eastern Kola Peninsula	5	0	5	0	0	0	0	38	0	0
Onega Peninsula	9	3	2	4	14	9	14	26	20	23
Dvina Gulf	82	4	12	66	139	77	139	538	118	173
Kholmogorsky	3	0	3	0	0	0	0	0	0	0

4.5 Europe

Table 12: Number of data points and model scores for Baltic Sea

Location	number data	marine limiting	terrestrial limiting	index point	72_73_74_75 ehgr	72_73_74_75_h ehgr	82_83_84_85 ehgr	72_73_74_75 eb0ggr	72_73_74_75 efhC	72_73_74_75 efhI
Total	1092	271	473	348	11124	6662	11123	23411	21426	13228
Achterwasser	26	0	6	20	162	99	163	69	181	185
Baltic Southwest	3	3	0	0	0	0	0	0	0	0
Rugen	53	5	8	40	457	281	459	179	469	517
Salt Meadows	43	0	1	42	240	133	241	130	333	321
Arkona Basin East	6	6	0	0	0	0	0	0	0	0
Arkona Basin West	12	8	4	0	6	0	7	0	6	9
Fakse Bugt	4	0	4	0	0	0	0	0	0	0
Lubeck	56	6	36	14	54	29	54	62	76	74
Kieler Bucht	40	12	27	1	31	26	31	74	46	52
Storebaelt	50	10	38	2	30	13	30	53	97	77
Lillebaelt	18	7	11	0	32	11	33	19	64	61
Samso Belt	67	47	8	12	38	3	38	25	211	175
Kattegat	25	25	0	0	0	0	0	0	0	0
Treoa Moellebugt	4	4	0	0	1	0	1	0	22	15
Vendsyssel Thy	56	51	1	4	24	35	24	114	37	13
Laesoe	3	2	0	1	4	2	4	7	0	3
Bohuslan	5	0	0	5	96	43	97	230	218	125
Goteborg	2	0	0	2	60	42	60	80	126	66
Halmstad	1	0	0	1	21	16	21	15	48	24
Asa	5	0	0	5	104	76	105	156	235	120
Sund	77	27	49	1	48	34	48	168	187	95
Havang	54	1	43	10	128	79	128	147	1209	290
Blekinge	33	2	9	22	187	104	187	398	661	336
Ustka	2	0	2	0	0	0	0	0	36	0
West Gulf Of Gdansk	10	1	9	0	7	5	7	28	14	6
South Vistula	42	1	41	0	25	19	25	268	12	19
Curonian Spit	1	1	0	0	1	0	1	0	1	1
Lithuania	43	25	18	0	189	143	188	283	656	295
Ventspils	5	1	4	0	66	48	66	106	189	99
West Gulf Of Riga	6	3	3	0	48	38	48	81	135	65
Riga	20	7	13	0	109	90	108	290	384	139
Parnu	79	3	66	10	2018	1535	2013	3694	4178	2148
South Saaremaa	7	0	6	1	220	163	220	337	375	250
Hiiumaa	41	7	26	8	720	474	719	1222	1014	791
Ostergotland	6	0	0	6	307	150	309	878	636	405
Sodermanland	9	0	0	9	265	117	268	610	460	378
Paldiski	2	0	0	2	33	22	33	61	32	32
Tallinn	13	0	8	5	452	310	452	909	755	449
Lahemaa	3	0	0	3	45	29	45	83	59	44
Narva-Luga	48	6	32	10	513	406	510	1616	1136	465
St Petersburg	1	0	0	1	11	5	11	55	59	14
Virolahti	4	0	0	4	151	100	150	327	257	146
Porvoo	10	0	0	10	272	161	272	591	353	263
Helsinki	9	0	0	9	313	198	312	578	397	312
Salo	18	0	0	18	711	447	709	1271	986	731
Turku	17	0	0	17	740	417	739	1179	937	800
Aland	3	0	0	3	106	51	106	166	146	129
Gastrikland	16	0	0	16	533	133	535	1505	997	746
Angermanland	13	0	0	13	292	57	291	1212	693	423
Alvsbyn	4	0	0	4	239	90	239	1117	548	296
Gunnarsbyn	8	0	0	8	509	199	510	1594	891	638
South Lapland	4	0	0	4	171	51	171	556	314	240
Oulu	2	0	0	2	163	80	163	444	265	171
South Ostroboth- nia	1	0	0	1	100	55	100	199	141	101
Satakunta	1	0	0	1	63	31	63	111	86	68
Central Finland	1	0	0	1	9	12	9	114	58	6

Table 13: Number of data points and model scores for North Sea

Location	number data	marine limiting	terrestrial limiting	index point	72_73_74_75 ehgr	72_73_74_75_h ehgr	82_83_84_85 ehgr	72_73_74_75 eb0ggr	72_73_74_75 efhC	72_73_74_75 efhl
Total	446	22	88	336	1485	931	1492	787	2111	2036
Rotterdam	112	0	52	60	399	276	402	91	532	525
Langeoog	36	2	4	30	43	22	43	49	85	82
Netherlands Wad- den Sea	51	0	25	26	162	106	163	15	235	225
Belgium	22	0	0	22	155	124	156	84	211	203
Southern Bight	4	0	0	4	0	1	0	6	5	2
Central Nether- lands	27	0	0	27	217	146	218	39	287	283
Oyster Ground	2	0	0	2	6	1	6	4	14	13
Dogger Bank	1	0	0	1	7	12	6	8	3	5
Norderney	56	0	0	56	129	53	130	124	208	198
Bremerhaven	51	0	0	51	197	90	198	145	288	279
Elbe	24	0	0	24	55	11	55	69	67	69
German Bight	13	0	0	13	66	42	66	39	97	109
Ho Bugt	20	0	0	20	36	26	36	93	11	11
Limfjord	27	20	7	0	13	21	13	21	68	32

Table 14: Number of data points and model scores for Western Norway

Location	number data	marine limiting	terrestrial limiting	index point	72_73_74_75 ehgr	72_73_74_75_h ehgr	82_83_84_85 ehgr	72_73_74_75 eb0ggr	72_73_74_75 efhC	72_73_74_75 efhl
Total	103	9	8	86	1055	835	1054	2434	2623	1207
Stavanger	17	8	3	6	57	30	57	195	282	86
Sotra	41	1	2	38	311	325	310	366	503	199
Torvikbygd	8	0	1	7	119	99	118	217	64	105
Sula	9	0	2	7	124	90	125	253	355	184
Bjugn	17	0	0	17	263	182	263	700	832	385
Frosta	11	0	0	11	181	109	181	703	587	248

4.6 French Polynesia

Table 15: Number of data points and model scores for French Polynesia

Location	number data	marine limiting	terrestrial limiting	index point	72_73_74_75 ehgr	72_73_74_75_h ehgr	82_83_84_85 ehgr	72_73_74_75 eb0ggr	72_73_74_75 efhC	72_73_74_75 efhl
Total	191	0	0	191	190	191	188	249	227	204
Mururoa	12	0	0	12	146	149	145	160	164	149
Tahiti	179	0	0	179	44	42	43	89	63	55

4.7 Melanesia

Table 16: Number of data points and model scores for Melansia

Location	number data	marine limiting	terrestrial limiting	index point	72_73_74_75 ehgr	72_73_74_75_h ehgr	82_83_84_85 ehgr	72_73_74_75 eb0ggr	72_73_74_75 efhC	72_73_74_75 efhl
Total	82	11	0	71	22	20	22	25	22	22
Vanuatu	82	11	0	71	22	20	22	25	22	22

4.8 MIS 3 - MIS 4

Table 17: Number of data points and model scores for Eastern United States (MIS3 - MIS4)

Location	number data	marine limiting	terrestrial limiting	index point	72_73_74_75 ehgr	72_73_74_75_h ehgr	82_83_84_85 ehgr	72_73_74_75 eb0ggr	72_73_74_75 efhC	72_73_74_75 efhl
Total	27	8	15	4	90	93	104	308	159	81
US Mid Atlantic	27	8	15	4	90	93	104	308	159	81

Table 18: Number of data points and model scores for French Polynesia (MIS3 - MIS4)

Location	number data	marine limiting	terrestrial limiting	index point	72_73_74_75 ehgr	72_73_74_75_h ehgr	82_83_84_85 ehgr	72_73_74_75 eb0ggr	72_73_74_75 efhC	72_73_74_75 efhl
Total	19	0	0	19	283	285	279	296	301	288
Mururoa	2	0	0	2	50	50	50	50	53	51
Tahiti	17	0	0	17	233	235	229	246	248	237

Table 19: Number of data points and model scores for Melanesia (MIS3 - MIS4)

Location	number data	marine limiting	terrestrial limiting	index point	72_73_74_75 ehgr	72_73_74_75_h ehgr	82_83_84_85 ehgr	72_73_74_75 eb0ggr	72_73_74_75 efhC	72_73_74_75 efhl
Total	6	0	0	6	50	50	33	51	49	51
Vanuatu	6	0	0	6	50	50	33	51	49	51

Table 20: Number of data points and model scores for Northeastern Australia (MIS3 - MIS4)

Location	number data	marine limiting	terrestrial limiting	index point	72_73_74_75 ehgr	72_73_74_75_h ehgr	82_83_84_85 ehgr	72_73_74_75 eb0ggr	72_73_74_75 efhC	72_73_74_75 efhl
Total	25	13	0	12	396	401	331	404	431	413
Cairns	19	7	0	12	396	401	331	404	431	413
Mackay	6	6	0	0	0	0	0	0	0	0

Table 21: Number of data points and model scores for Papua New Guinea (MIS3 - MIS4)

Location	number data	marine limiting	terrestrial limiting	index point	72_73_74_75 ehgr	72_73_74_75_h ehgr	82_83_84_85 ehgr	72_73_74_75 eb0ggr	72_73_74_75 efhC	72_73_74_75 efhl
Total	52	0	0	52	188	186	128	196	195	193
Huon Peninsula	40	0	0	40	90	88	56	91	90	91
Huon Peninsula de Gelder	12	0	0	12	98	98	72	105	105	102

Table 22: Number of data points and model scores for Sea of Japan - East Sea (MIS3 - MIS4)

Location	number data	marine limiting	terrestrial limiting	index point	72_73_74_75 ehgr	72_73_74_75_h ehgr	82_83_84_85 ehgr	72_73_74_75 eb0ggr	72_73_74_75 efhC	72_73_74_75 efhl
Total	6	2	1	3	104	106	86	108	119	107
Tsushima-Korea Strait	6	2	1	3	104	106	86	108	119	107

Table 23: Number of data points and model scores for Sundaland (MIS3 - MIS4)

Location	number data	marine limiting	terrestrial limiting	index point	72_73_74_75 ehgr	72_73_74_75_h ehgr	82_83_84_85 ehgr	72_73_74_75 eb0ggr	72_73_74_75 efhC	72_73_74_75 efhl
Total	29	14	13	2	227	238	245	219	234	225
Sunda Shelf	11	7	3	1	98	107	90	94	120	104
Vietnam Shelf	1	1	0	0	0	0	0	0	0	0
Strait Of Malacca	11	2	9	0	32	36	33	49	46	34
Mekong Delta	1	1	0	0	17	16	20	12	10	14
Chao Phraya	3	3	0	0	61	60	80	51	43	55
Berhala Strait	2	0	1	1	19	19	22	13	15	18

Table 24: Number of data points and model scores for Yellow Sea (MIS3 - MIS4)

Location	number data	marine limiting	terrestrial limiting	index point	72_73_74_75 ehgr	72_73_74_75_h ehgr	82_83_84_85 ehgr	72_73_74_75 eb0ggr	72_73_74_75 efhC	72_73_74_75 efhl
Total	11	11	0	0	3	2	17	0	0	2
South Bohai Sea	4	4	0	0	3	2	10	0	0	2
Yellow Sea	7	7	0	0	0	0	7	0	0	0

4.9 North America

Table 25: Number of data points and model scores for Eastern United States

Location	number data	marine limiting	terrestrial limiting	index point	72_73_74_75 ehgr	72_73_74_75_h ehgr	82_83_84_85 ehgr	72_73_74_75 eb0ggr	72_73_74_75 efhC	72_73_74_75 efhl
Total	357	138	38	181	1310	1221	1394	2395	1842	1166
Outer Delaware	60	5	5	50	311	281	326	423	428	283
Inner Delaware	38	2	8	28	147	139	155	183	217	130
Inner Chesapeake	106	99	0	7	300	222	318	426	481	269
Eastern Shore	28	7	6	15	83	86	87	131	95	71
Northern North Carolina	60	23	6	31	274	263	296	631	374	223
Southern North Carolina	24	2	3	19	47	60	51	126	45	40
Northern South Carolina	18	0	8	10	62	67	67	180	84	61
Southern South Carolina	23	0	2	21	86	103	94	295	118	89

Table 26: Number of data points and model scores for Gulf of St Lawrence

Location	number data	marine limiting	terrestrial limiting	index point	72_73_74_75 ehgr	72_73_74_75_h ehgr	82_83_84_85 ehgr	72_73_74_75 eb0ggr	72_73_74_75 efhC	72_73_74_75 efhl
Total	108	38	32	38	635	427	624	461	1311	947
Cape Breton	16	4	7	5	3	14	1	19	23	67
Magdalen Islands	22	2	11	9	66	18	60	33	159	131
Prince Edward Island	31	9	6	16	133	57	140	300	251	172
Chaleur Bay	15	10	5	0	5	5	5	9	36	29
Anticosti Island	24	13	3	8	428	333	418	100	842	548

Table 27: Number of data points and model scores for Hudson Bay

Location	number data	marine limiting	terrestrial limiting	index point	72_73_74_75 ehgr	72_73_74_75_h ehgr	82_83_84_85 ehgr	72_73_74_75 eb0ggr	72_73_74_75 efhC	72_73_74_75 efhl
Total	243	113	68	62	6330	3735	6771	17374	11371	8165
Kivalliq	31	21	5	5	343	250	360	788	472	405
Churchill	23	9	7	7	359	209	416	1342	912	644
West James Bay	17	4	10	3	324	148	397	1493	915	523
East James Bay	36	20	9	7	1275	685	1362	2770	2062	1554
Umiujaq	94	34	33	27	3738	2221	3947	10198	6395	4653
Inukjuak	21	11	2	8	261	168	278	605	384	347
Ivujivik	21	14	2	5	30	54	11	178	231	39

Table 28: Number of data points and model scores for Hudson Strait

Location	number data	marine limiting	terrestrial limiting	index point	72_73_74_75 ehgr	72_73_74_75_h ehgr	82_83_84_85 ehgr	72_73_74_75 eb0ggr	72_73_74_75 efhC	72_73_74_75 efhl
Total	86	65	18	3	1219	1111	1136	2360	1099	699
Sugluk	40	30	10	0	582	640	502	498	167	83
Kangiqtujuaq	14	13	1	0	170	156	150	265	7	34
Western Ungava Bay	21	17	4	0	193	154	197	557	296	195
Southern Ungava Bay	11	5	3	3	274	161	287	1040	629	387

Table 29: Number of data points and model scores for Labrador

Location	number data	marine limiting	terrestrial limiting	index point	72_73_74_75 ehgr	72_73_74_75_h ehgr	82_83_84_85 ehgr	72_73_74_75 eb0ggr	72_73_74_75 efhC	72_73_74_75 efhl
Total	61	16	45	0	377	266	367	1007	691	482
Tornat	18	7	11	0	253	221	251	479	25	81
Nain	16	2	14	0	88	35	83	304	414	224
Hamilton Inlet	15	3	12	0	1	0	0	0	88	53
Lake Melville	12	4	8	0	35	10	33	224	164	124

Table 30: Number of data points and model scores for Maritimes

Location	number data	marine limiting	terrestrial limiting	index point	72_73_74_75 ehgr	72_73_74_75_h ehgr	82_83_84_85 ehgr	72_73_74_75 eb0ggr	72_73_74_75 efhC	72_73_74_75 efhl
Total	207	30	40	137	388	209	415	1304	1365	498
Sable Island	10	1	6	3	21	12	25	55	53	18
Halifax	48	15	4	29	52	37	62	76	120	51
Shelburne	9	0	4	5	11	10	13	5	22	4
Cumberland	112	6	15	91	182	110	198	712	756	247
Passamaquoddy Bay	28	8	11	9	122	40	117	456	414	178

Table 31: Number of data points and model scores for Newfoundland

Location	number data	marine limiting	terrestrial limiting	index point	72_73_74_75 ehgr	72_73_74_75_h ehgr	82_83_84_85 ehgr	72_73_74_75 eb0ggr	72_73_74_75 efhC	72_73_74_75 efhl
Total	160	53	61	46	795	560	773	1349	1548	1152
Great Northern Peninsula	56	16	23	17	112	202	132	566	141	48
Notre Dame Bay	29	12	13	4	68	35	63	178	178	103
Avalon Peninsula	13	3	5	5	2	10	3	28	4	5
Bay Of Islands	16	5	3	8	194	78	179	141	460	345
Port Aux Basques	46	17	17	12	419	235	396	436	765	651

Table 32: Number of data points and model scores for Northeastern United States

Location	number data	marine limiting	terrestrial limiting	index point	72_73_74_75 ehgr	72_73_74_75_h ehgr	82_83_84_85 ehgr	72_73_74_75 eb0ggr	72_73_74_75 efhC	72_73_74_75 efhl
Total	479	51	117	311	2171	1792	2266	2118	3243	1612
Eastern Maine	49	0	4	45	188	147	200	75	378	83
Southern Maine	86	24	6	56	470	392	499	555	590	214
Northern Mas- sachusetts	43	3	16	24	99	84	102	69	160	70
Southern Mas- sachusetts	43	12	14	17	240	191	250	293	310	202
Connecticut	95	0	41	54	140	126	146	119	232	119
Long Island	25	0	6	19	227	175	234	229	310	208
New York	76	6	19	51	492	406	507	400	809	425
New Jersey	62	6	11	45	315	271	328	378	454	291

Table 33: Number of data points and model scores for St Lawrence Lowlands

Location	number data	marine limiting	terrestrial limiting	index point	72_73_74_75 ehgr	72_73_74_75_h ehgr	82_83_84_85 ehgr	72_73_74_75 eb0ggr	72_73_74_75 efhC	72_73_74_75 efhl
Total	218	53	50	115	2584	1734	2611	2948	7523	4798
Rimouski	90	17	15	58	1577	1152	1579	1356	3850	2298
Forestville	59	18	7	34	527	391	536	496	999	756
Quebec City	69	18	28	23	480	191	496	1096	2674	1744

4.10 Proxy Based Sea Level

Table 34: Number of data points and model scores for Red Sea

Location	number data	marine limiting	terrestrial limiting	index point	72_73_74_75 ehgr	72_73_74_75_h ehgr	82_83_84_85 ehgr	72_73_74_75 eb0ggr	72_73_74_75 efhC	72_73_74_75 efhl
Total	175	0	0	175	280	299	277	299	362	293
Red Sea proxy 30ka	175	0	0	175	280	299	277	299	362	293

4.11 South Asia

Table 35: Number of data points and model scores for Bay of Bengal

Location	number data	marine limiting	terrestrial limiting	index point	72_73_74_75 ehgr	72_73_74_75_h ehgr	82_83_84_85 ehgr	72_73_74_75 eb0ggr	72_73_74_75 efhC	72_73_74_75 efhl
Total	7	5	0	2	82	84	81	73	96	85
Ganges Delta	7	5	0	2	82	84	81	73	96	85

4.12 Southeast Asia

Table 36: Number of data points and model scores for Java Sea

Location	number data	marine limiting	terrestrial limiting	index point	72_73_74_75 ehgr	72_73_74_75_h ehgr	82_83_84_85 ehgr	72_73_74_75 eb0ggr	72_73_74_75 efhC	72_73_74_75 efhl
Total	47	18	2	27	195	216	196	169	184	172
Central Java	6	0	0	6	31	32	31	24	28	26
South Sulawesi	41	18	2	21	164	184	165	145	156	146

Table 37: Number of data points and model scores for Papua New Guinea

Location	number data	marine limiting	terrestrial limiting	index point	72_73_74_75 ehgr	72_73_74_75_h ehgr	82_83_84_85 ehgr	72_73_74_75 eb0ggr	72_73_74_75 efhC	72_73_74_75 efhl
Total	51	29	0	22	28	31	30	3	13	18
Huon Peninsula	51	29	0	22	28	31	30	3	13	18

Table 38: Number of data points and model scores for Sundaland

Location	number data	marine limiting	terrestrial limiting	index point	72_73_74_75 ehgr	72_73_74_75_h ehgr	82_83_84_85 ehgr	72_73_74_75 eb0ggr	72_73_74_75 efhC	72_73_74_75 efhl
Total	404	88	108	208	929	984	933	900	986	859
Chao Phraya	33	5	9	19	160	181	161	100	109	126
Mekong Delta	71	2	24	45	55	57	56	138	107	86
Strait Of Malacca	137	29	45	63	211	241	212	145	172	167
Sunda Shelf	53	7	7	39	239	224	240	280	340	250
Vietnam Shelf	5	1	0	4	10	11	10	23	29	15
Phuket	40	20	13	7	47	52	47	35	39	37
Thale Noi	3	0	1	2	14	13	14	10	10	12
West Malay Peninsula	2	2	0	0	1	3	1	1	1	0
East Malay Peninsula	4	3	1	0	8	8	8	3	6	5
Southeast Malay Peninsula	13	12	0	1	34	41	34	27	33	28
Belitung Island	25	0	0	25	116	115	116	116	114	107
Ca Na	18	7	8	3	34	38	34	22	26	26

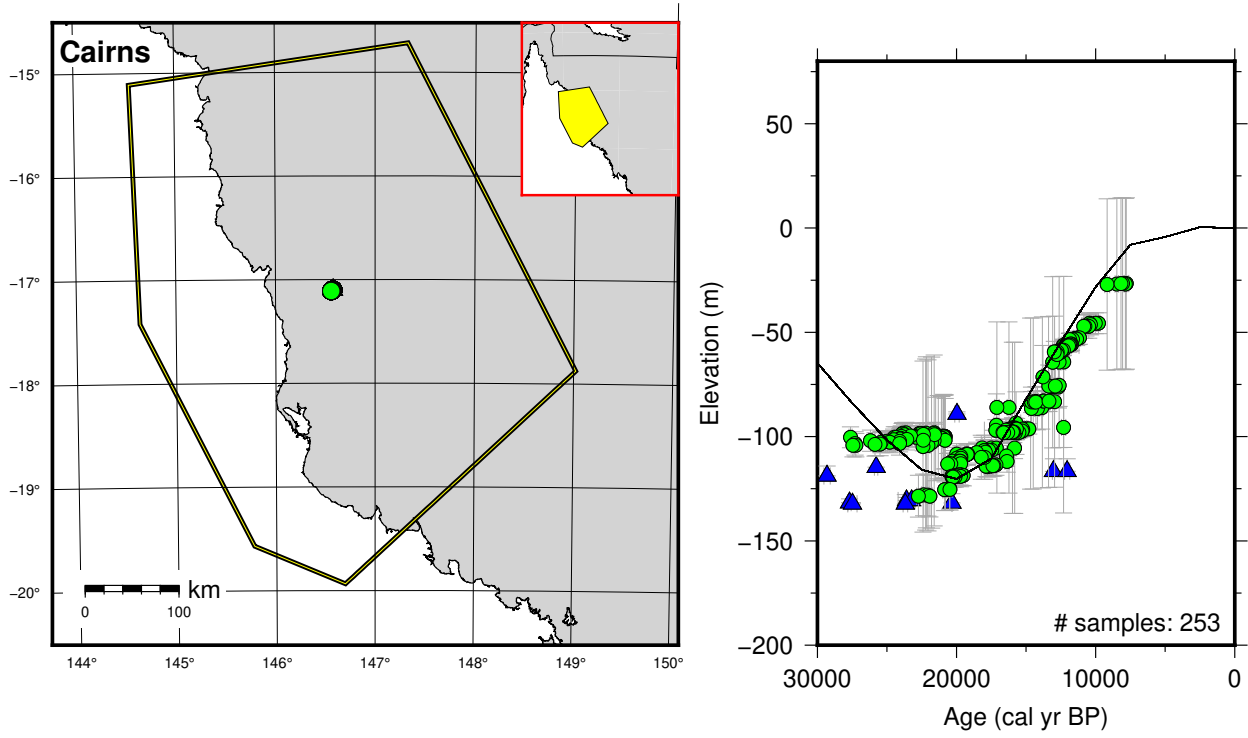
5 Australia

5.1 Northeastern Australia

References for the data used in each location.

Cairns: Yokoyama et al. (2018)

Mackay: Yokoyama et al. (2018)



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point Reference ice model: 72_73_74_75
Reference Earth Model: ehgr

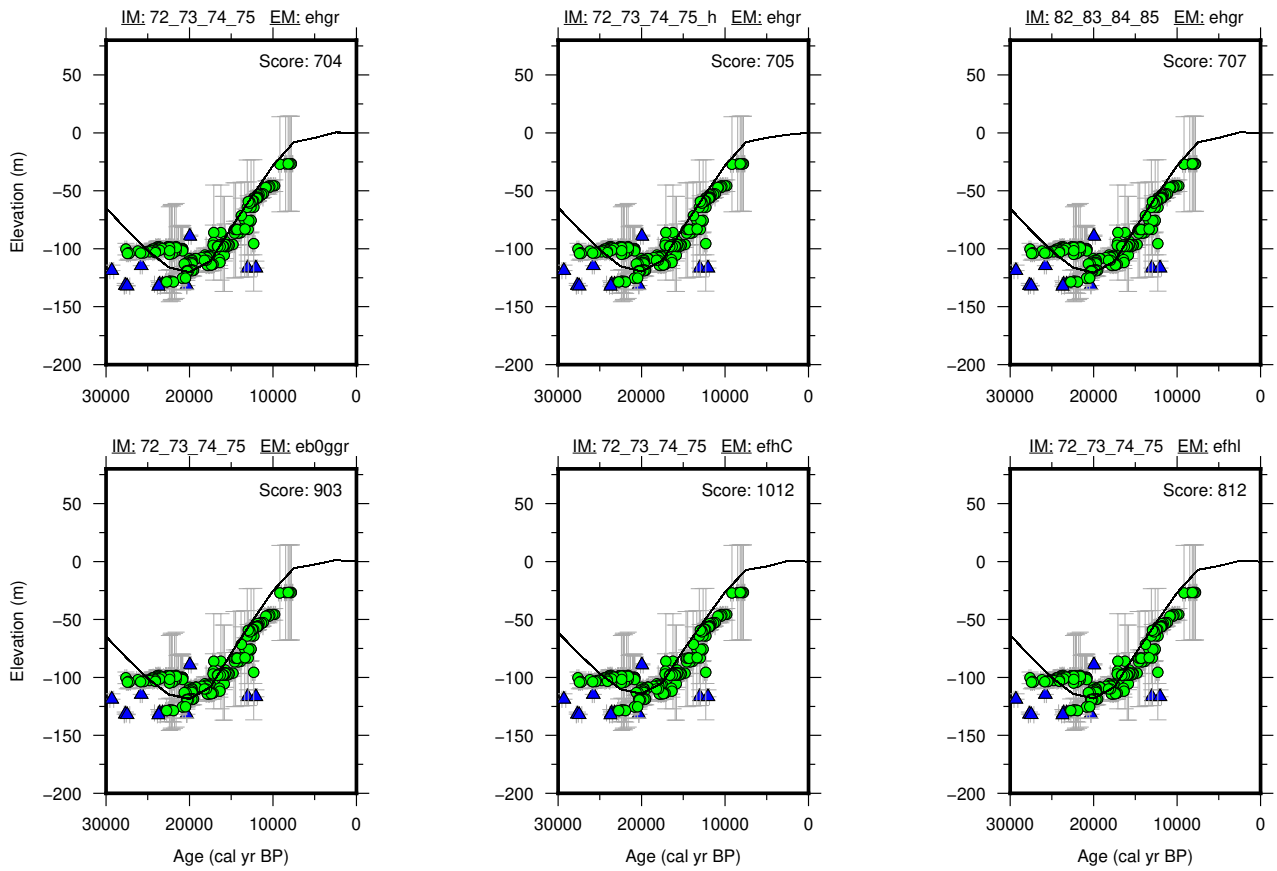
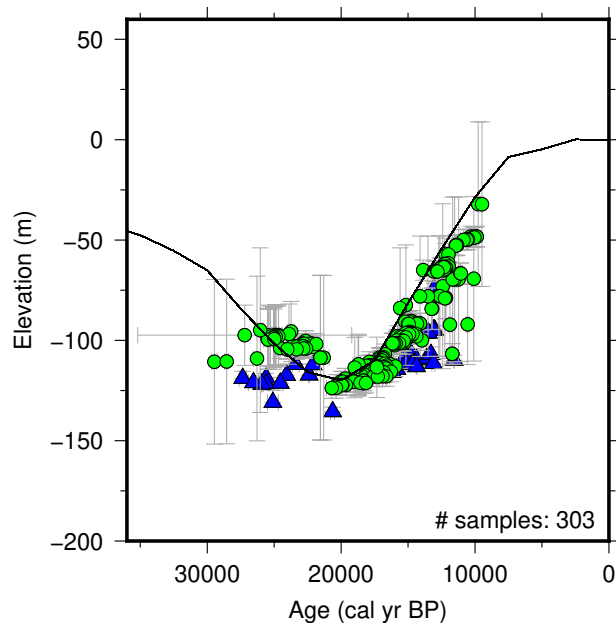
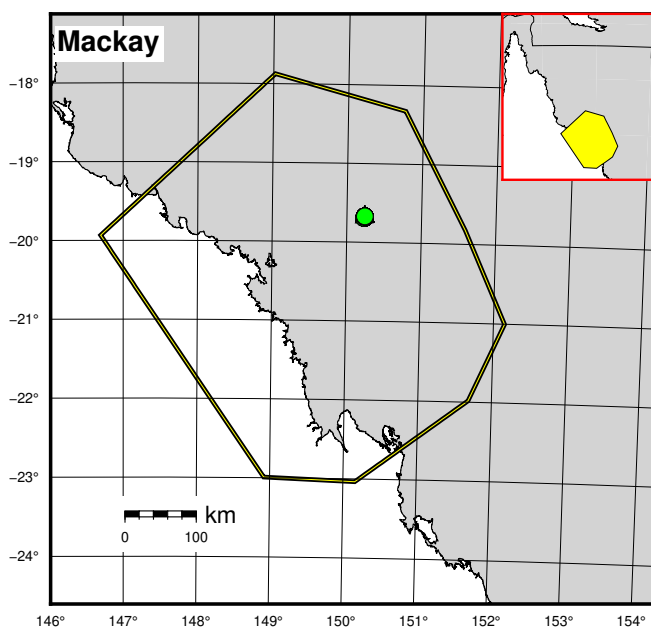


Figure 1: Paleo-sea level and comparison of six models for subregion Northeastern Australia, location Cairns.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point Reference ice model: 72_73_74_75
 Reference Earth Model: ehgr

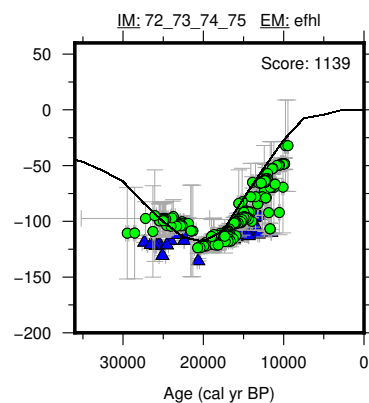
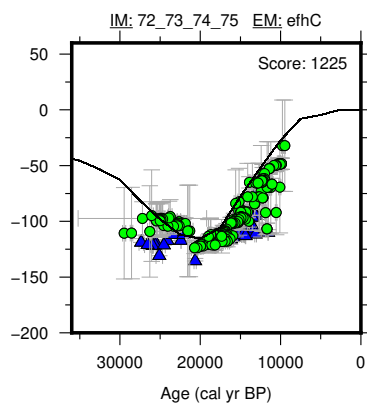
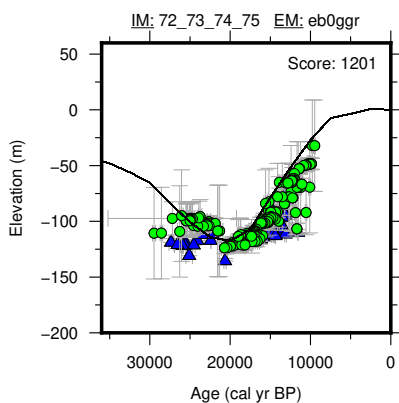
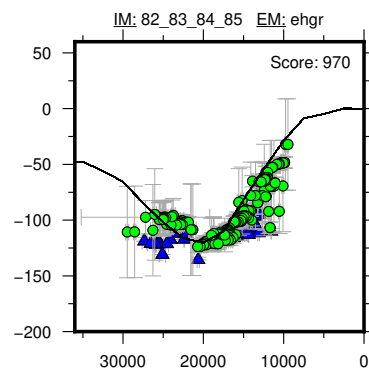
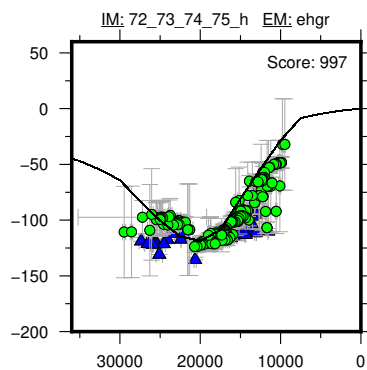
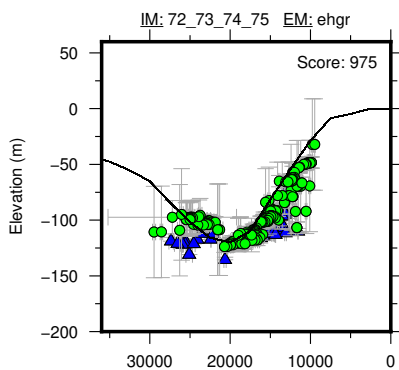


Figure 2: Paleo-sea level and comparison of six models for subregion Northeastern Australia, location Mackay.

5.2 Northwestern Australia

References for the data used in each location.

Bonaparte Gulf: Ishiwa et al. (2019); Yokoyama et al. (2000)

Bonaparte Gulf SLI Yokoyama2000: Yokoyama et al. (2000)

Bonaparte Gulf SLI Ishiwa2019: Ishiwa et al. (2019); Yokoyama et al. (2000)

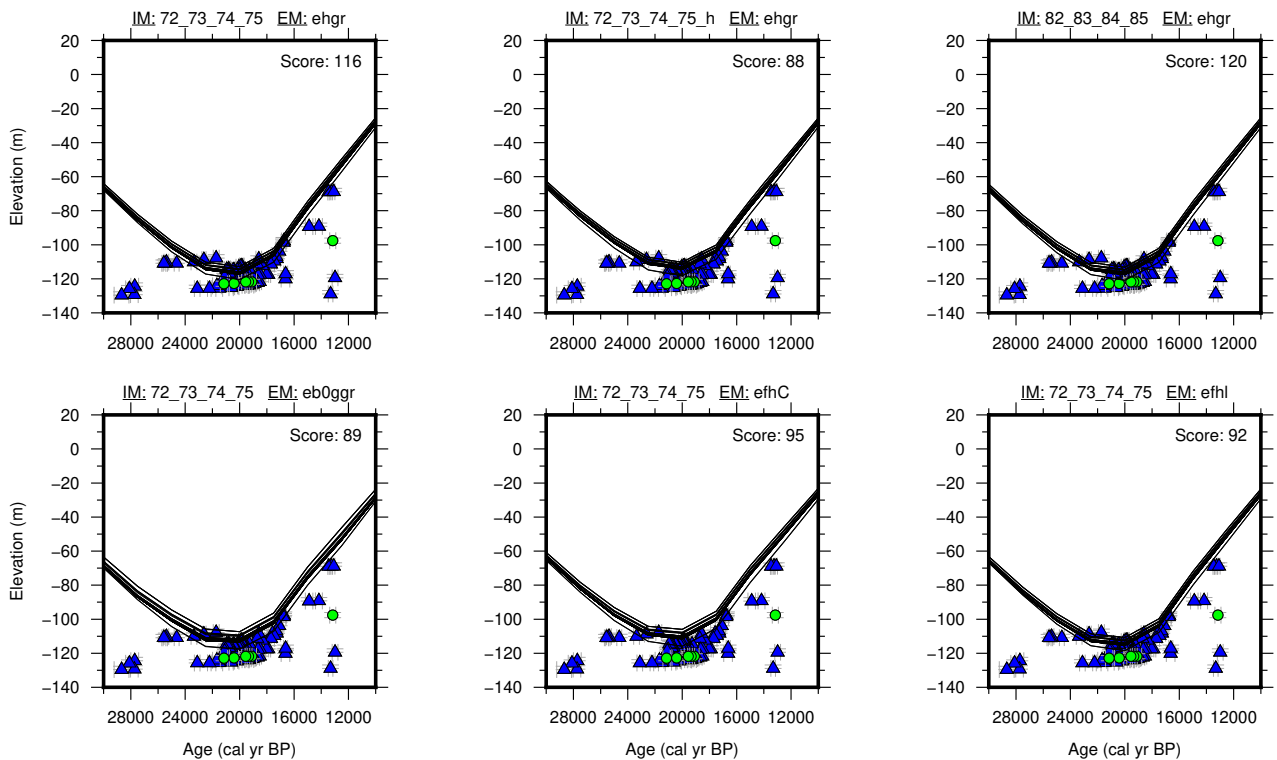
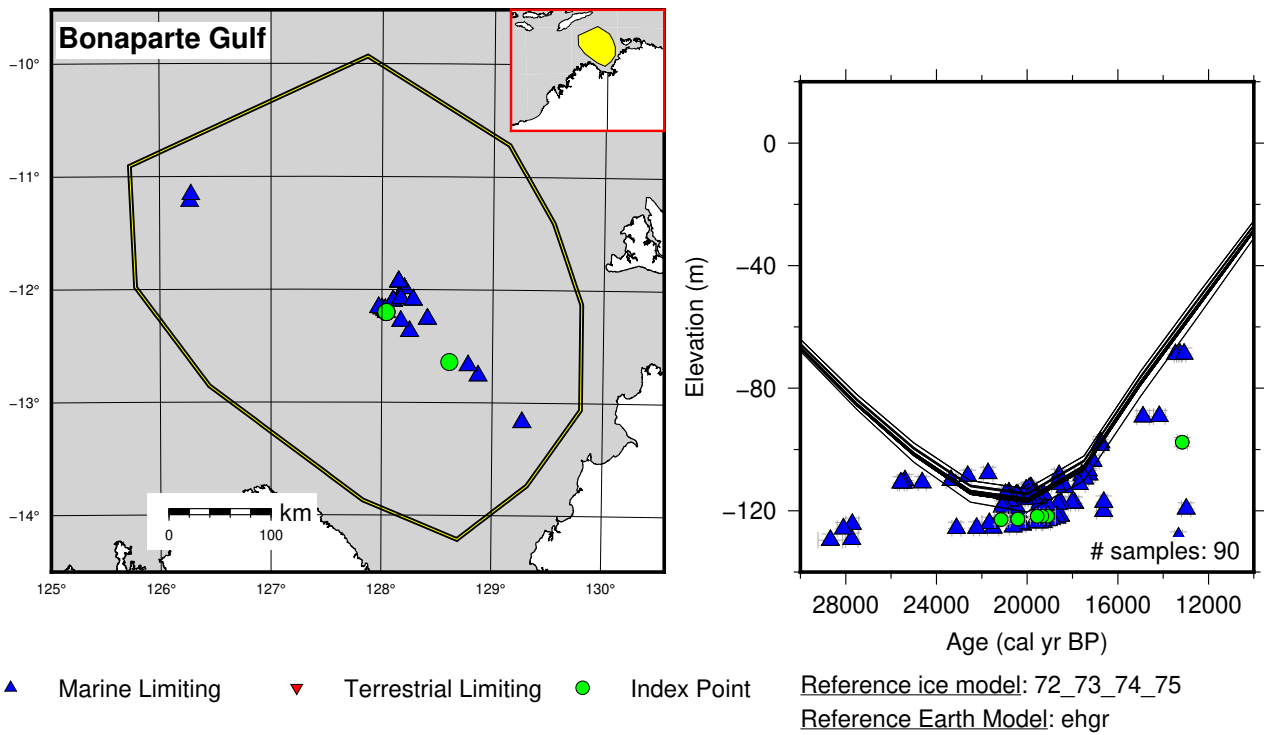


Figure 3: Paleo-sea level and comparison of six models for subregion Northwestern Australia, location Bonaparte Gulf.

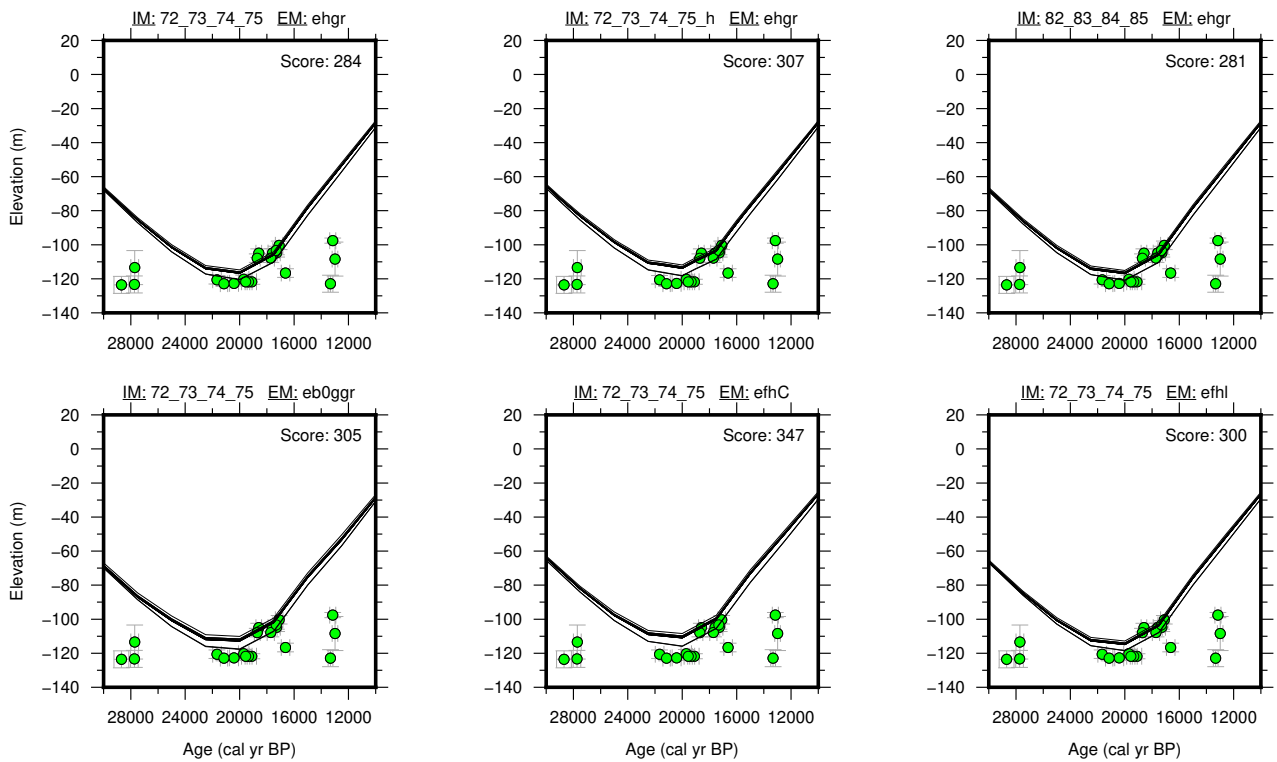
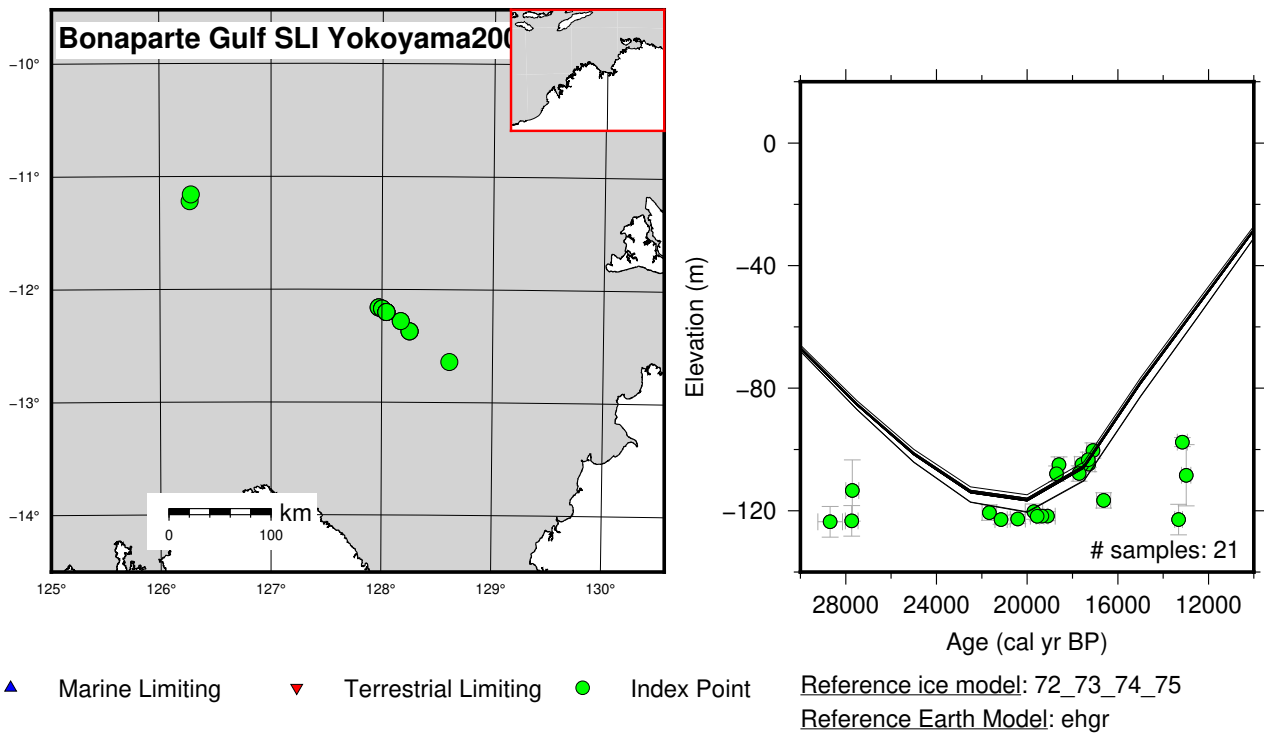


Figure 4: Paleo-sea level and comparison of six models for subregion Northwestern Australia, location Bonaparte Gulf SLI Yokoyama2000.

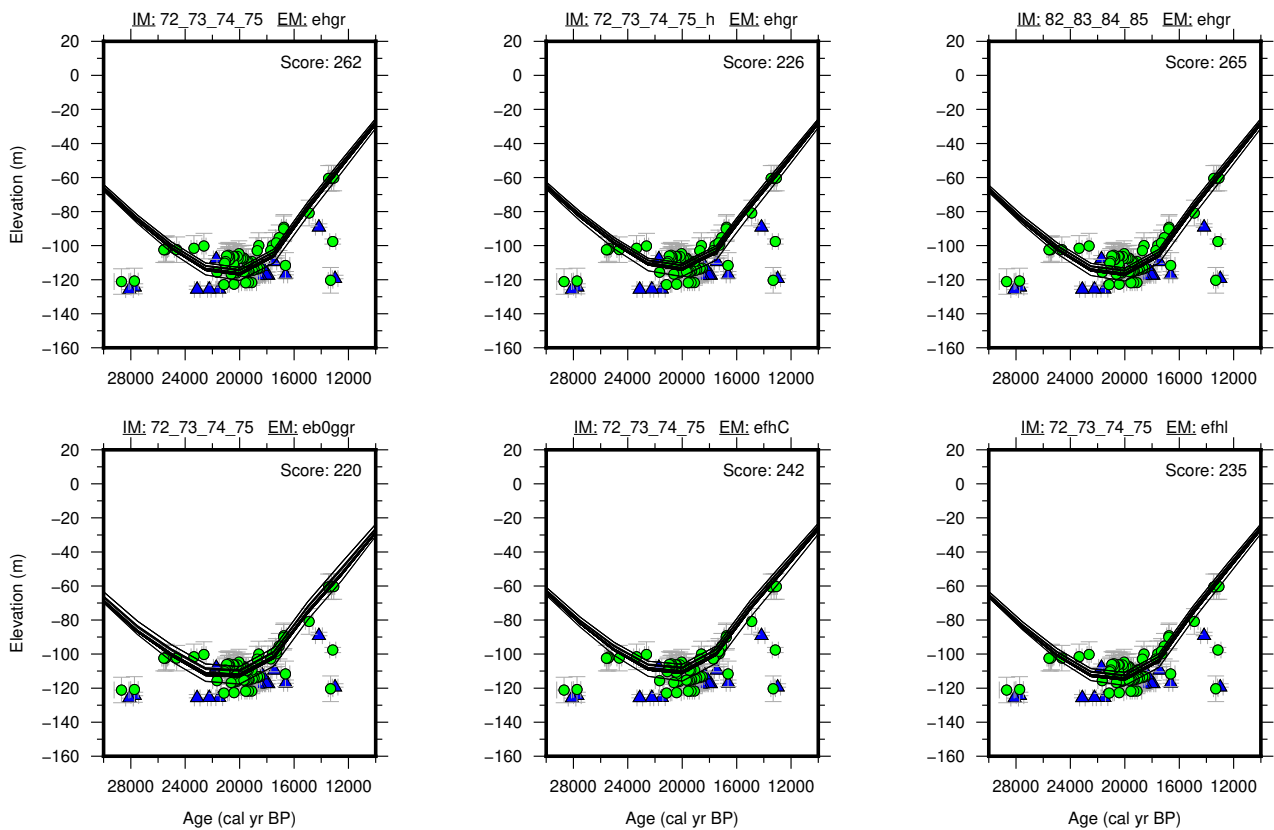
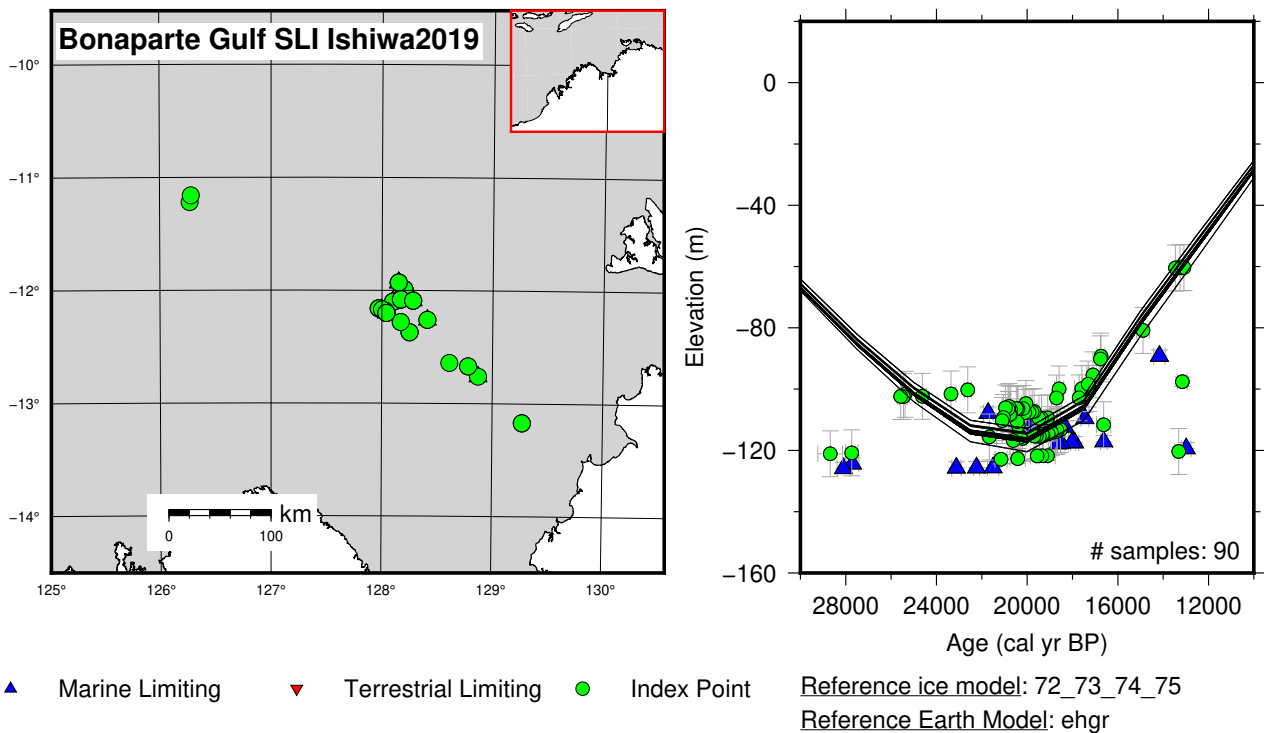


Figure 5: Paleo-sea level and comparison of six models for subregion Northwestern Australia, location Bonaparte Gulf SLI Ishiwa2019.

6 Caribbean

6.1 Lesser Antilles

References for the data used in each location.

Barbados: Abdul et al. (2016); Fairbanks (1988); Peltier and Fairbanks (2006)

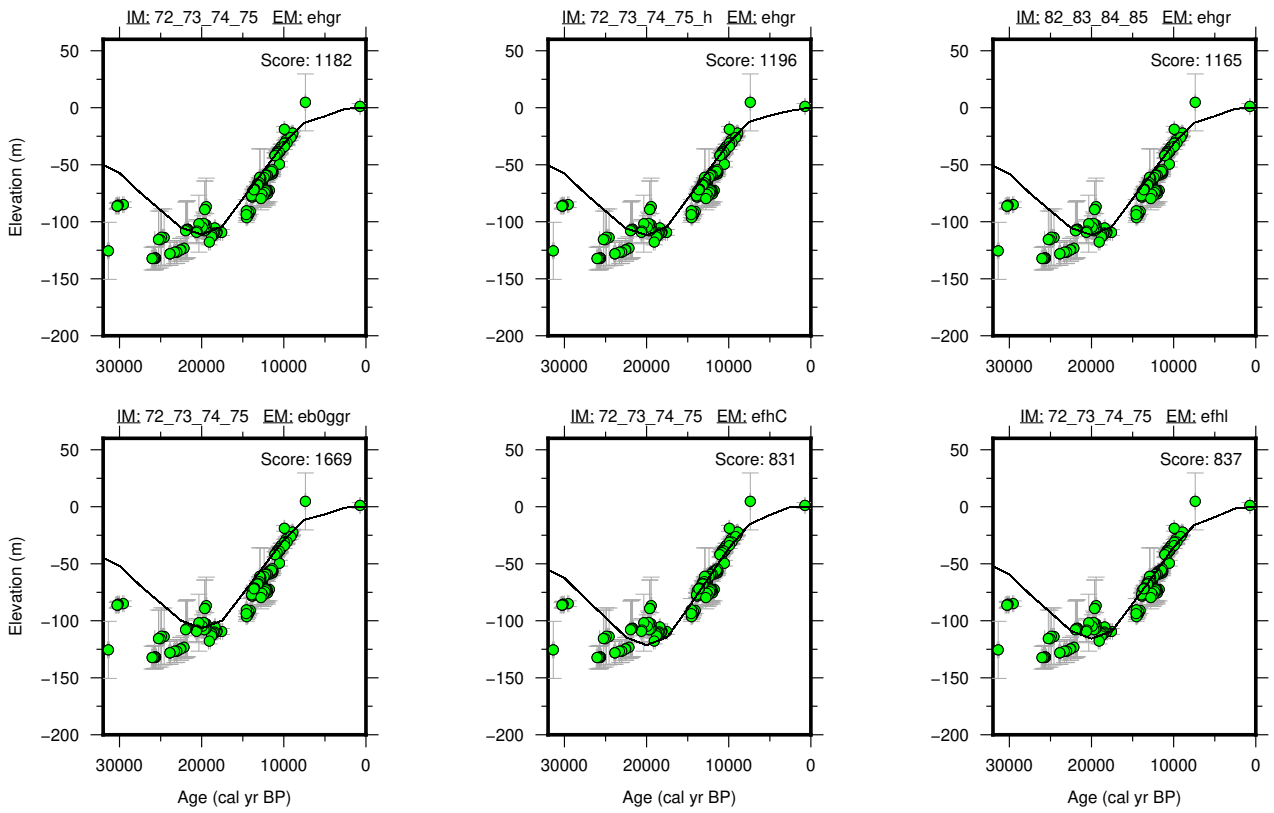
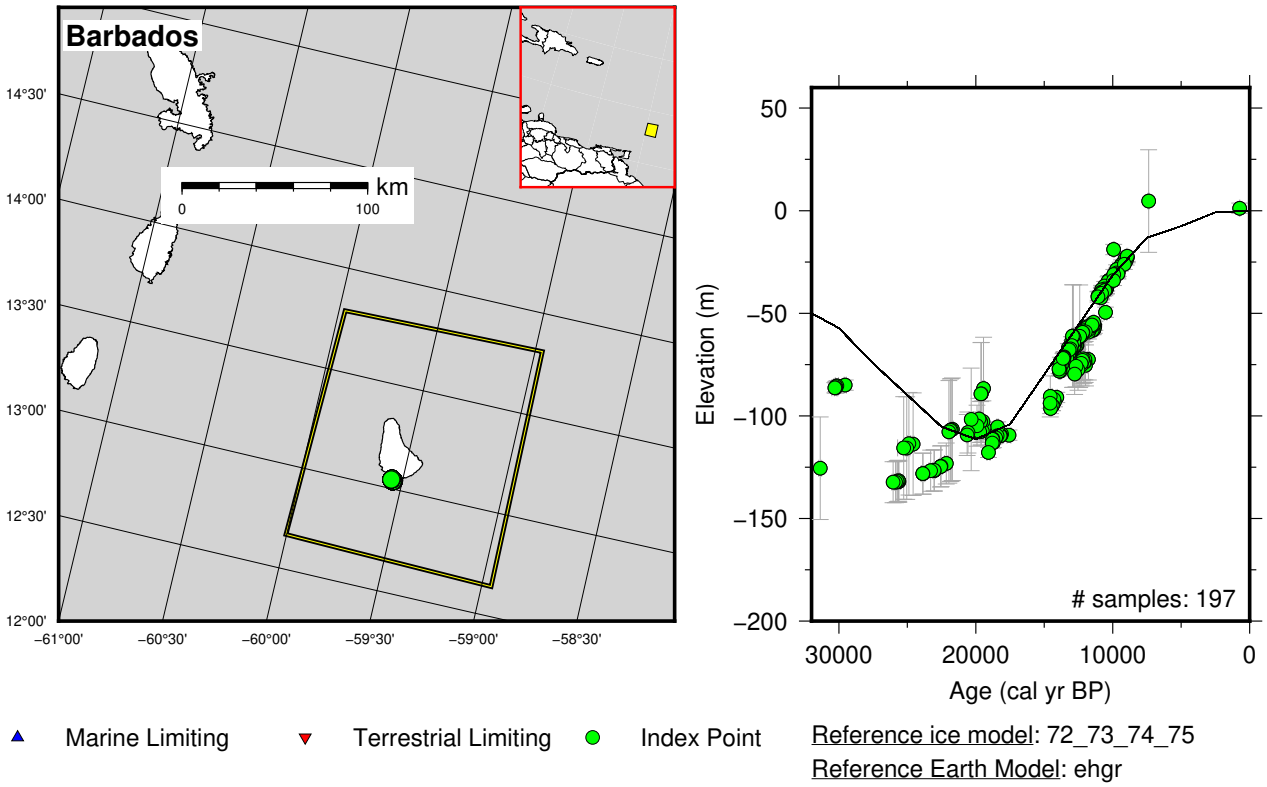


Figure 6: Paleo-sea level and comparison of six models for subregion Lesser Antilles, location Barbados.

7 East Asia

7.1 Ryukyu Islands

References for the data used in each location.

Miyakojima: Sasaki et al. (2006)

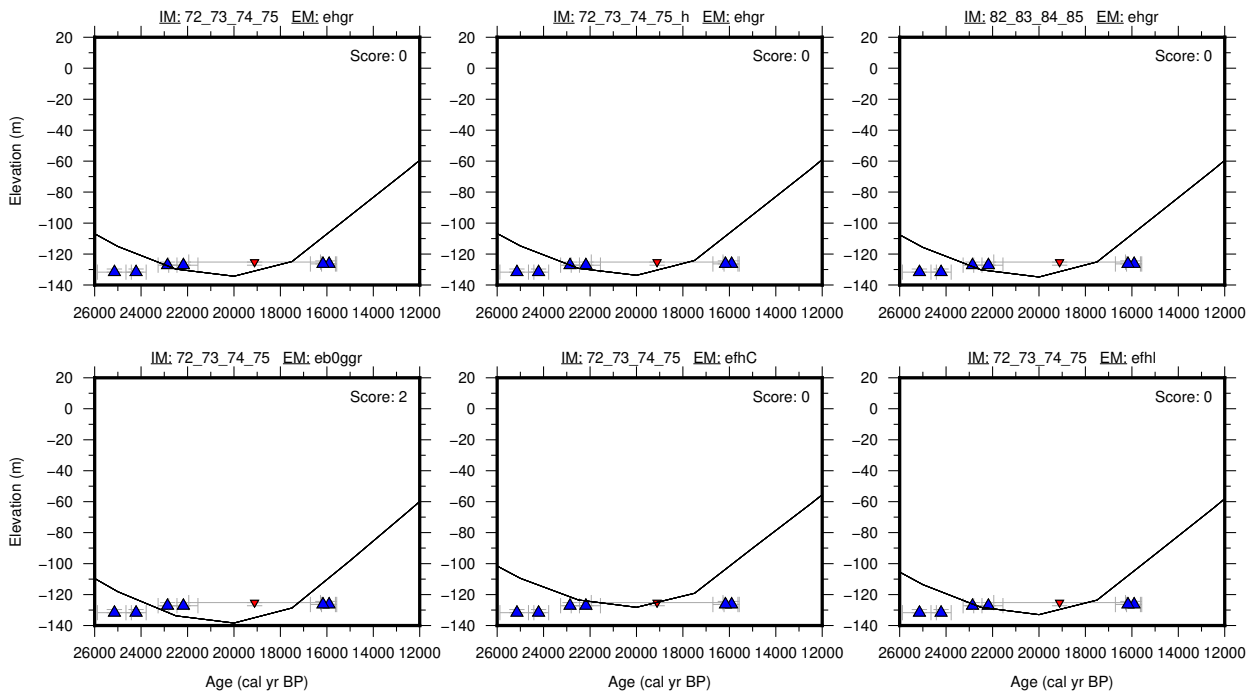
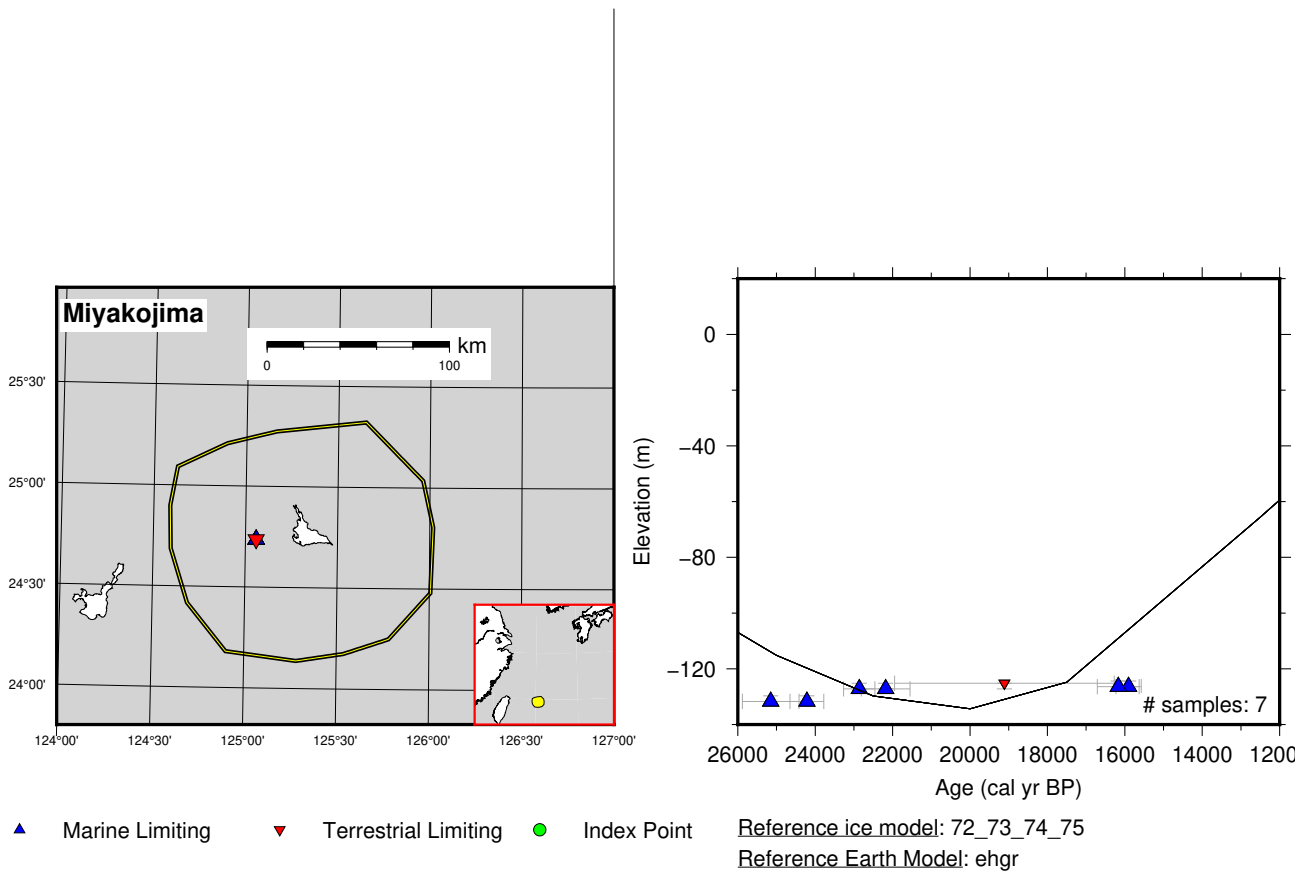


Figure 7: Paleo-sea level and comparison of six models for subregion Ryukyu Islands, location Miyakojima.

7.2 Sea of Japan - East Sea

References for the data used in each location.

Tsushima-Korea Strait: Park et al. (2000)

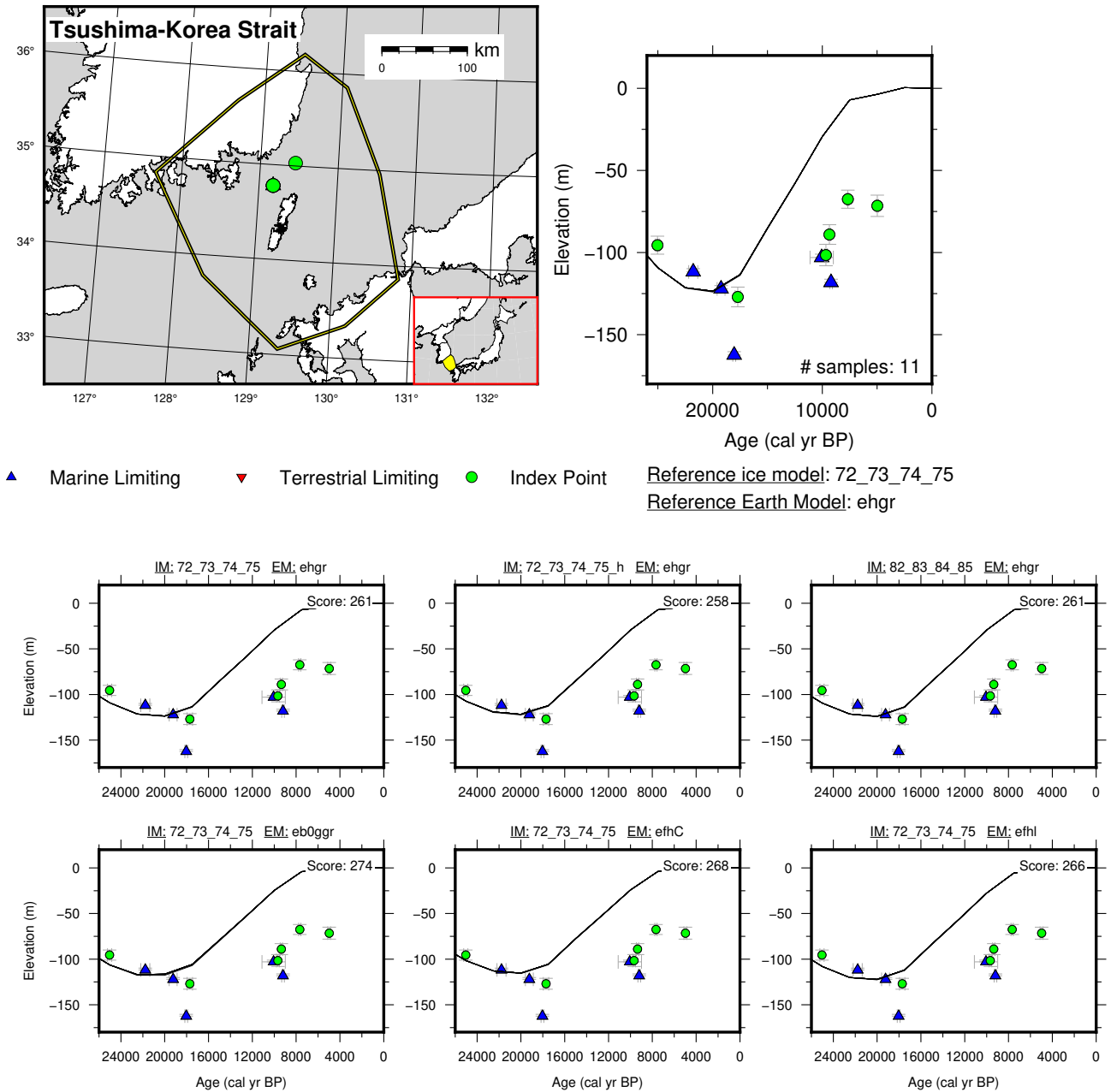


Figure 8: Paleo-sea level and comparison of six models for subregion Sea of Japan - East Sea, location Tsushima-Korea Strait.

8 Eurasian Arctic

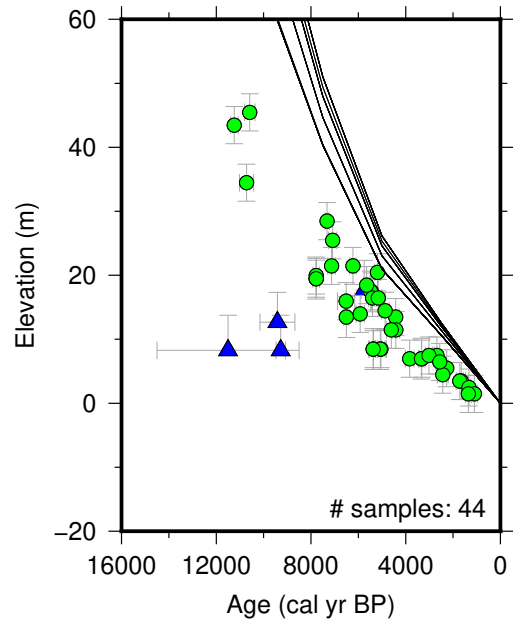
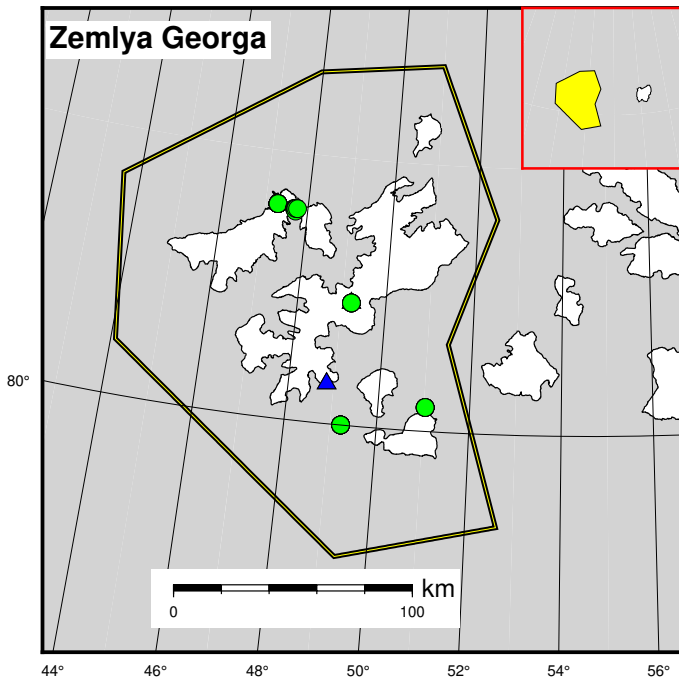
8.1 Franz Josef Land

References for the data used in each location.

Zemlya Georga: Bolshiyarov et al. (2009); Dibner (1965); Forman et al. (1996, 2004); Glazovskiy et al. (1992); Grosswald (1973); Kovaleva (1974)

Zemlya Zichy: Bolshiyarov et al. (2009); Gusev et al. (2013b)

Proliy Markama: Bolshiyarov et al. (2009); Forman and Polyak (1997); Forman et al. (1996, 2004); Grosswald (1963, 1973); Gusev et al. (2013b); Kovaleva (1974); Lubinski (1998); Weihe (1996)



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point

Reference ice model: 72_73_74_75
Reference Earth Model: ehgr

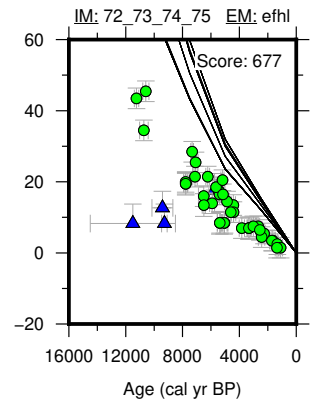
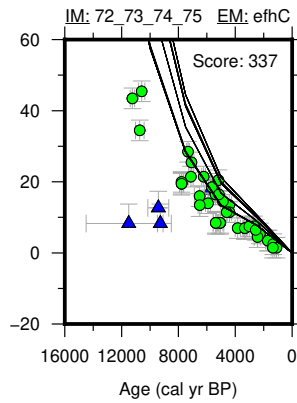
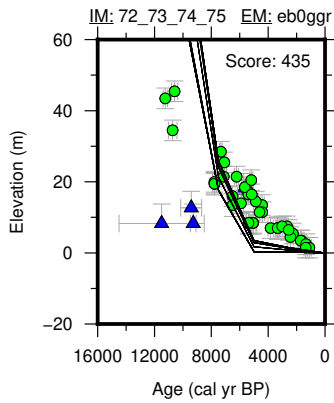
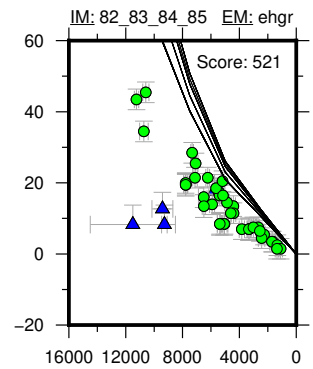
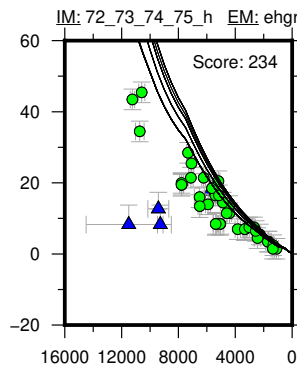
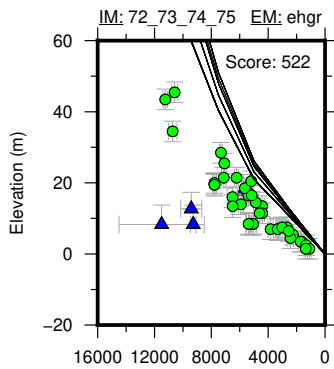
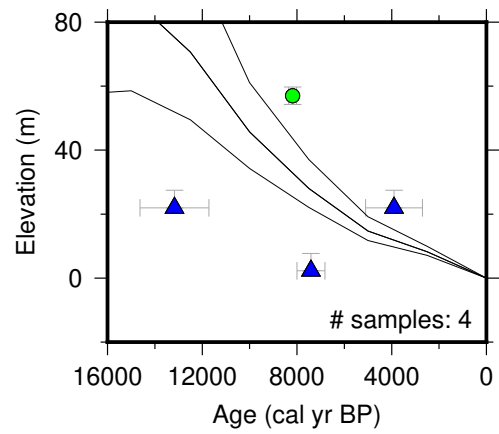
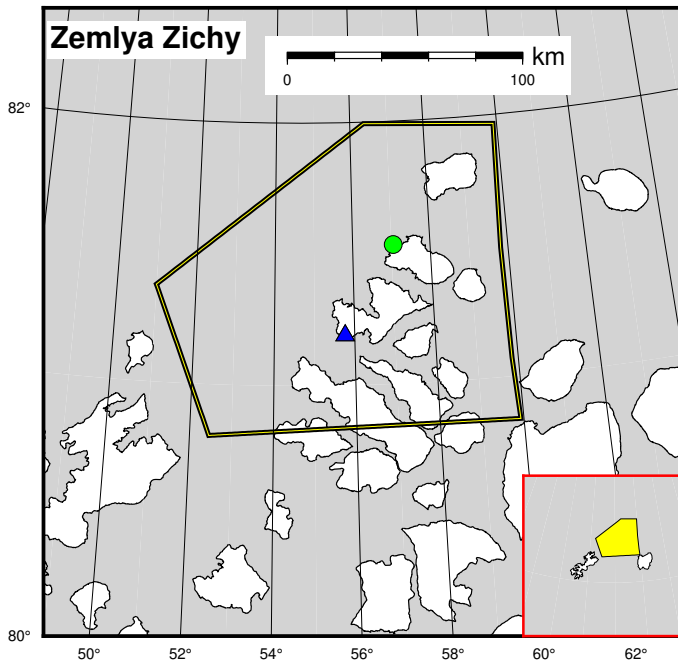


Figure 9: Paleo-sea level and comparison of six models for subregion Franz Josef Land, location Zemlya Georga.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point

Reference ice model: 72_73_74_75
Reference Earth Model: ehgr

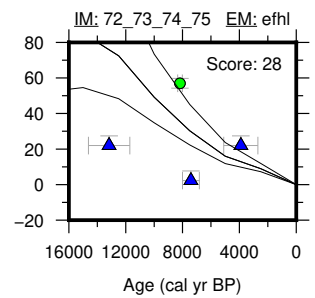
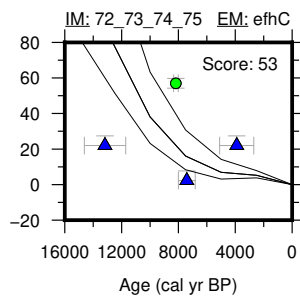
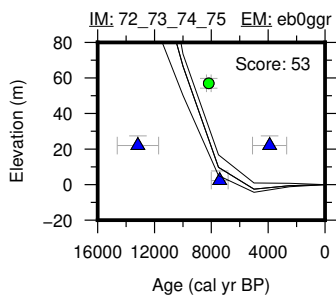
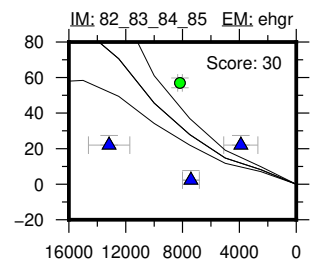
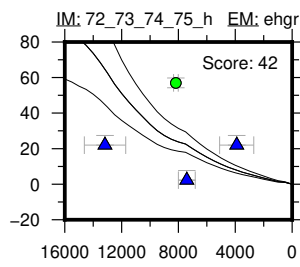
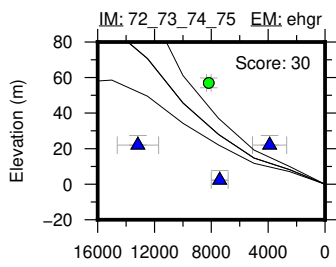
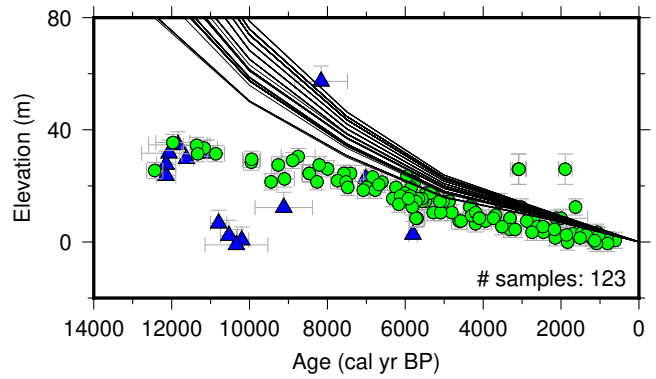
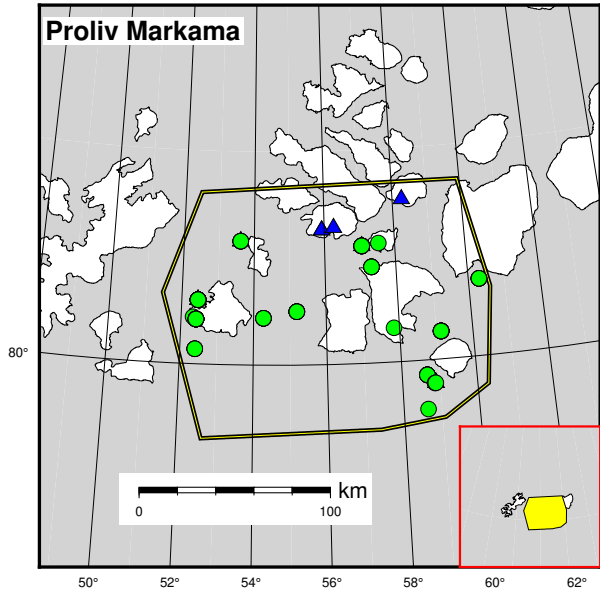


Figure 10: Paleo-sea level and comparison of six models for subregion Franz Josef Land, location Zemlya Zichy.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point

Reference ice model: 72_73_74_75

Reference Earth Model: ehgr

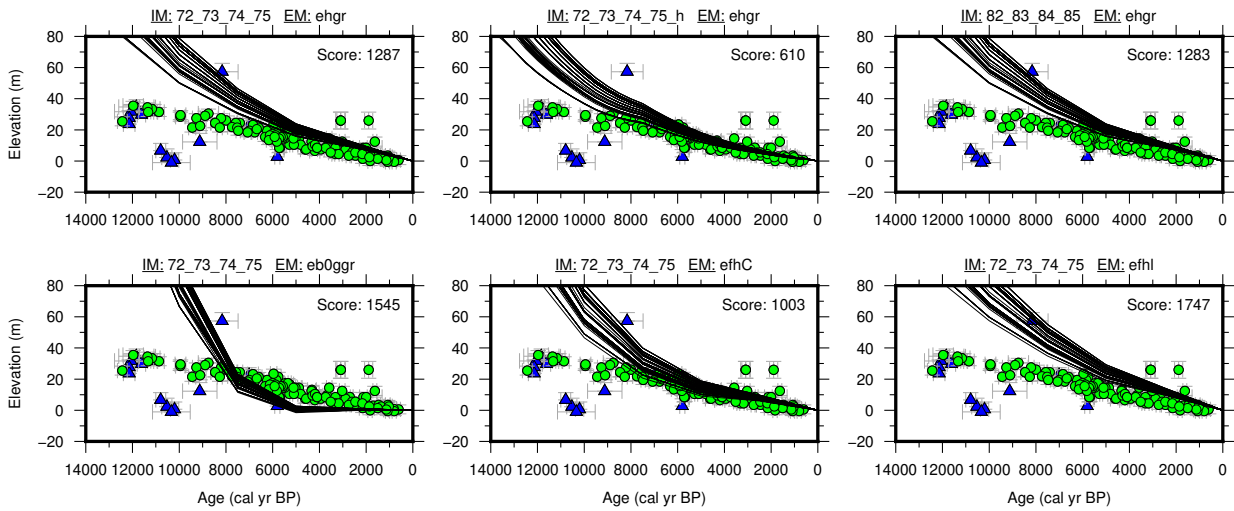


Figure 11: Paleo-sea level and comparison of six models for subregion Franz Josef Land, location Proliv Markama.

8.2 Kara Sea - Novaya Zemlya

References for the data used in each location.

Pechora Sea: Astakhov et al. (2007); Krapivner (2006); Polyak et al. (2000); Zhuravlev et al. (2013)

Yuzhny Island: Bolshiyarov et al. (2006); Mangerud et al. (2008); Zhuravlev et al. (2013)

Severny Island West: Bolshiyarov et al. (2009); Forman et al. (1999, 2004); Zeeberg et al. (2001)

Severny Island North: Forman et al. (1999, 2004); Gawronski and Zeeberg (1997); Zeeberg et al. (2001)

Vaygach Island: Forman et al. (2004); Zeeberg et al. (2001)

Baydaratskaya Bay: Belova (2012); Grigorieva (1987)

Gulf of Ob: Astakhov and Nazarov (2010); Grigorieva (1987); Makeev (1988); Makeev et al. (1988)

Khalmyer Bay: Baranskaya et al. (2018b); Grigorieva (1987); Makeev (1988); Romanenko et al. (2007)

Kara Sea shelf: Levitan et al. (2007); Polyakova and Stein (2004)

Ostrov Sibiryakova: Gusev et al. (2013a)

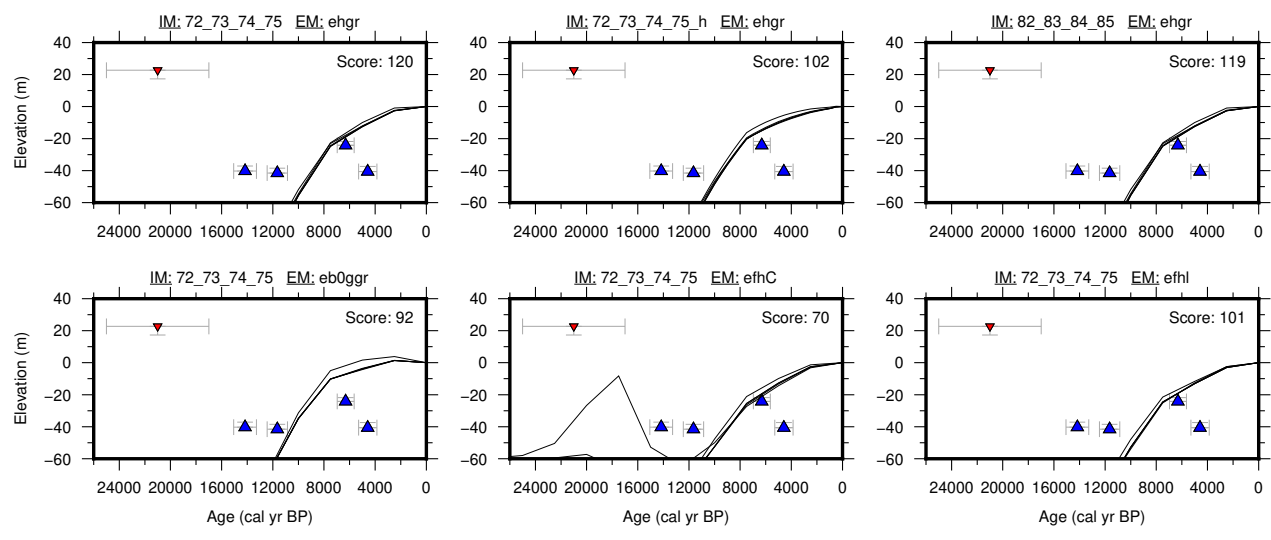
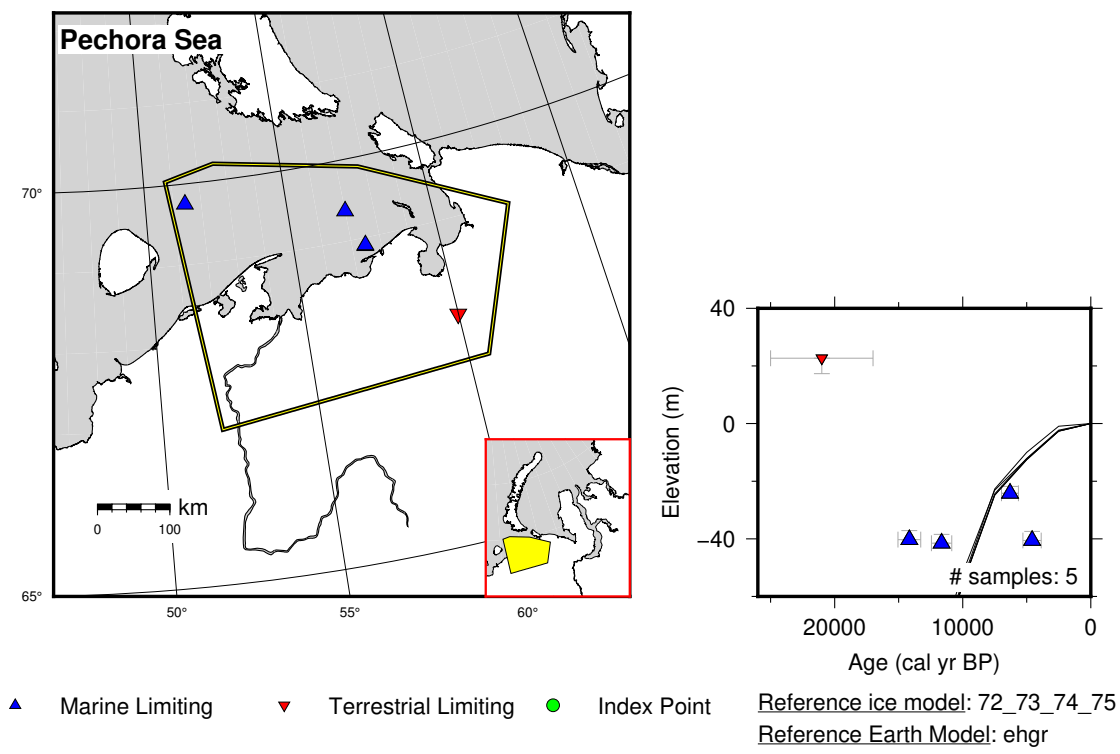


Figure 12: Paleo-sea level and comparison of six models for subregion Kara Sea - Novaya Zemlya, location Pechora Sea.

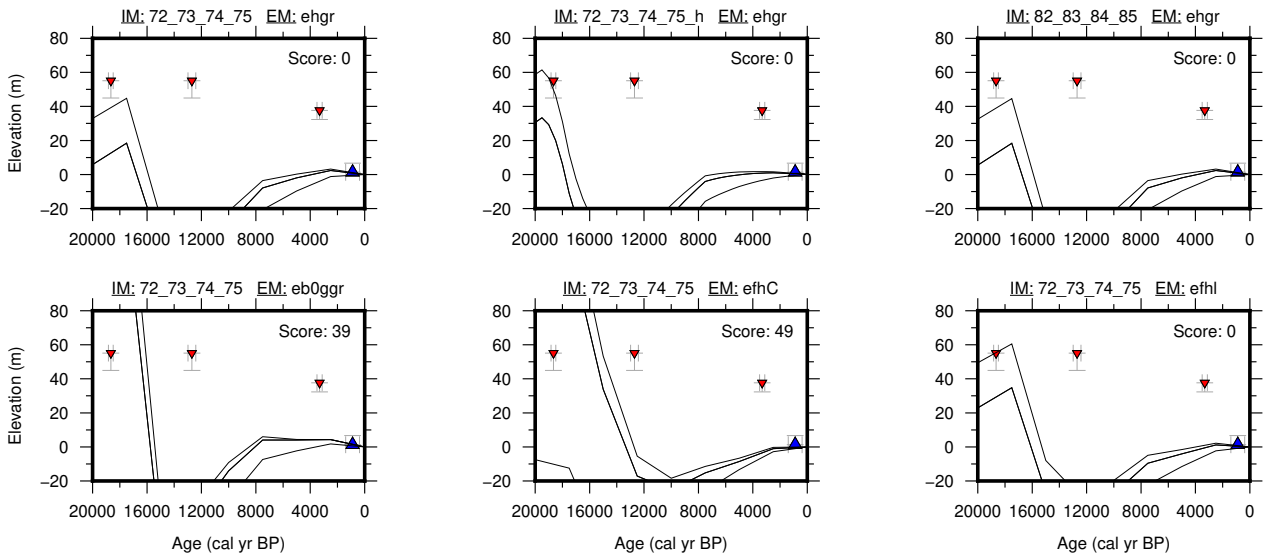
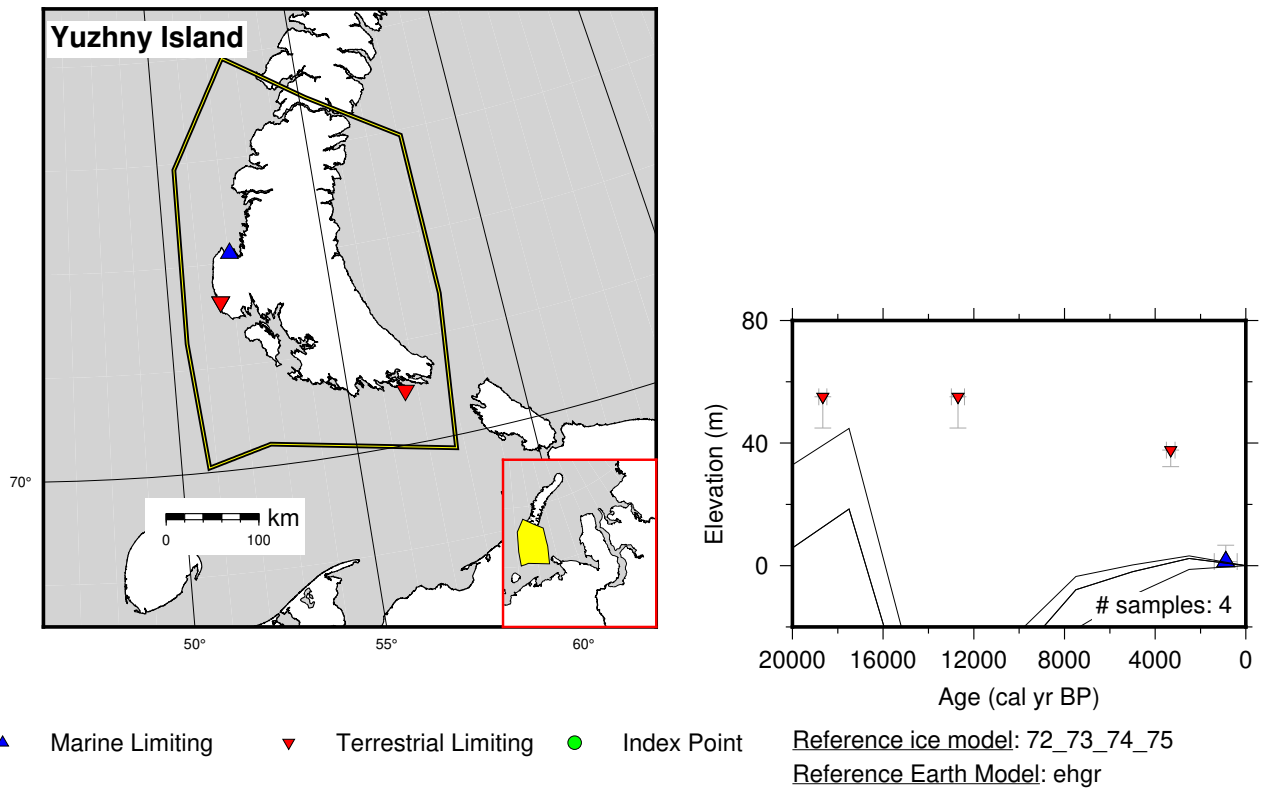


Figure 13: Paleo-sea level and comparison of six models for subregion Kara Sea - Novaya Zemlya, location Yuzhny Island.

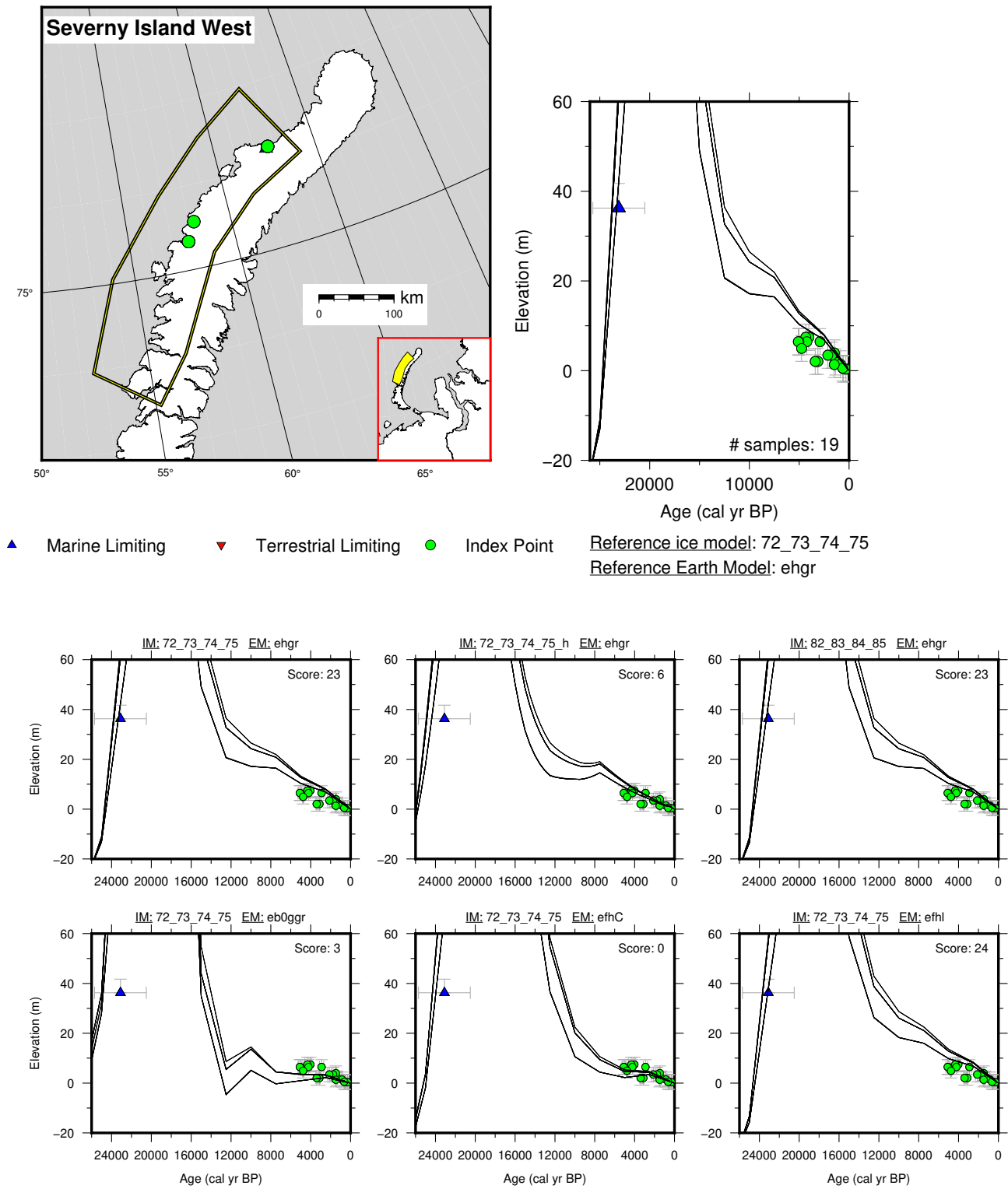
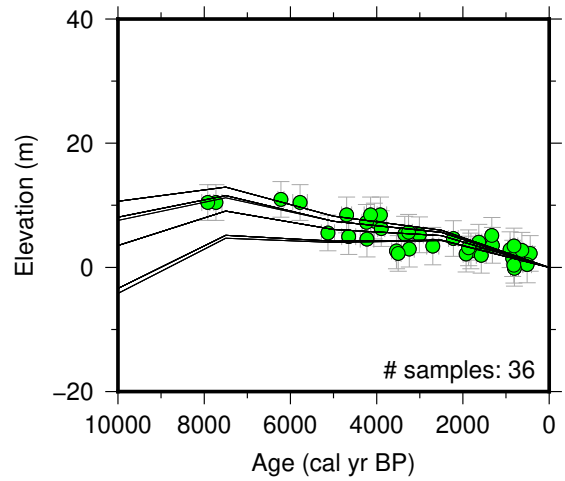
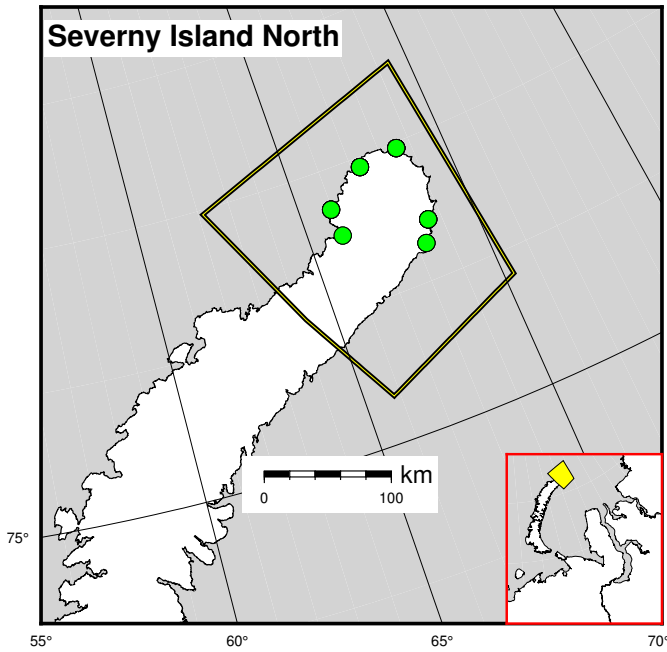


Figure 14: Paleo-sea level and comparison of six models for subregion Kara Sea - Novaya Zemlya, location Severny Island West.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point Reference ice model: 72_73_74_75
 Reference Earth Model: ehgr

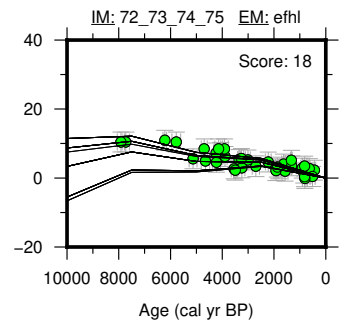
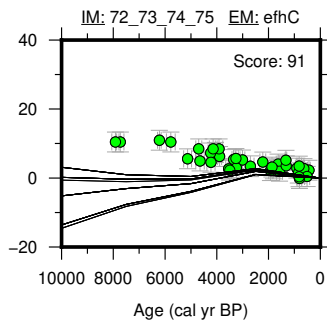
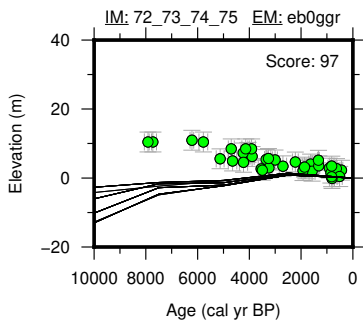
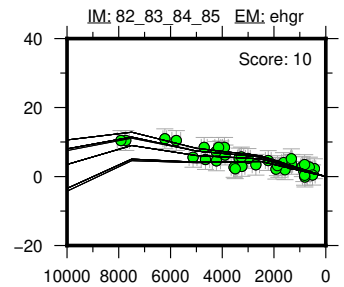
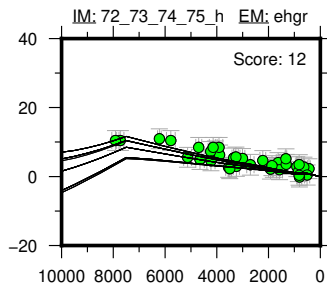
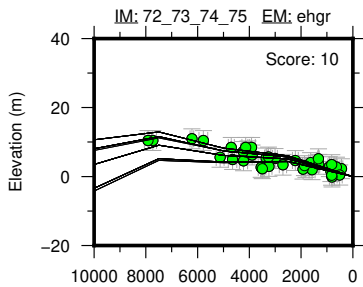
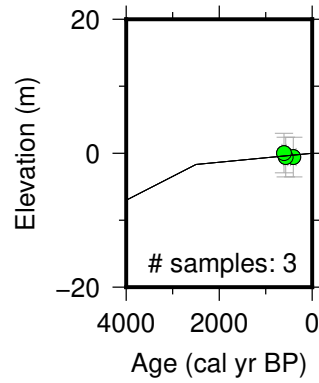
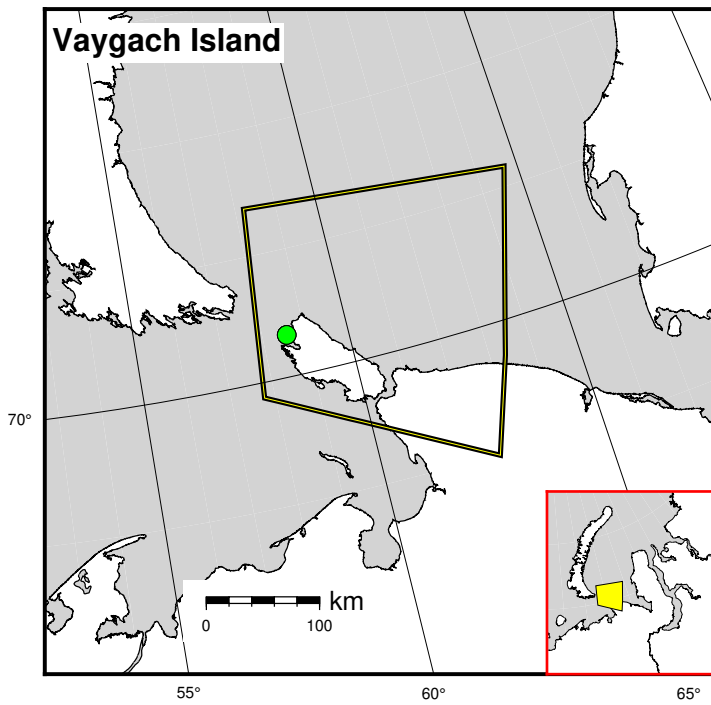


Figure 15: Paleo-sea level and comparison of six models for subregion Kara Sea - Novaya Zemlya, location Severny Island North.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point

Reference ice model: 72_73_74_75
Reference Earth Model: ehgr

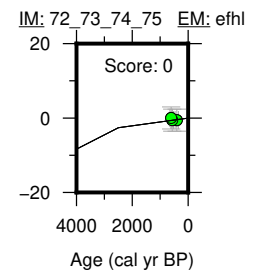
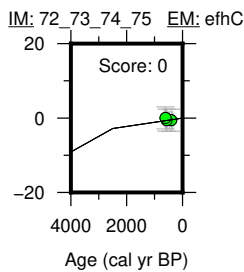
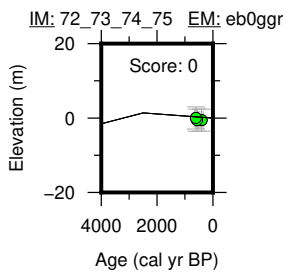
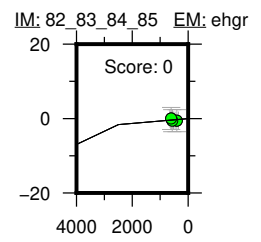
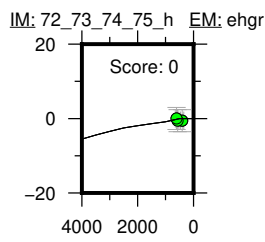
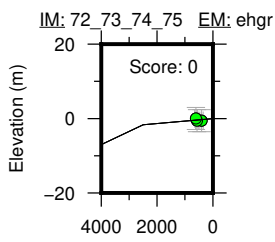
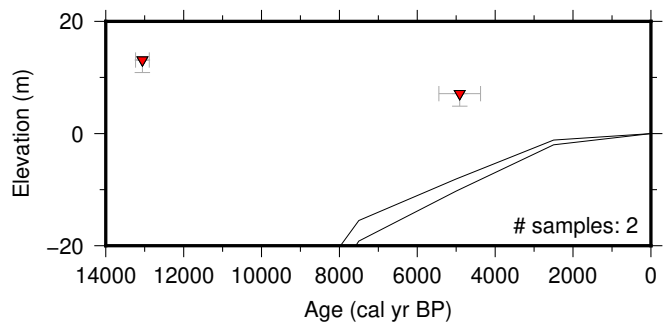
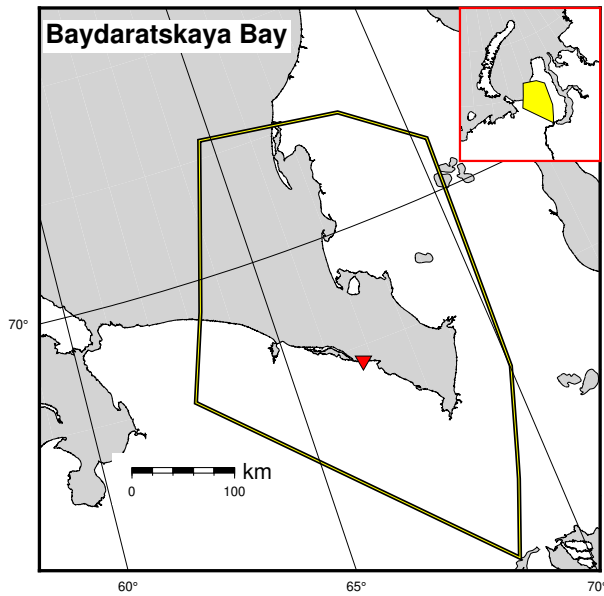


Figure 16: Paleo-sea level and comparison of six models for subregion Kara Sea - Novaya Zemlya, location Vaygach Island.



▲ Marine Limiting
 ▼ Terrestrial Limiting
 ● Index Point
 Reference ice model: 72_73_74_75
 Reference Earth Model: ehgr

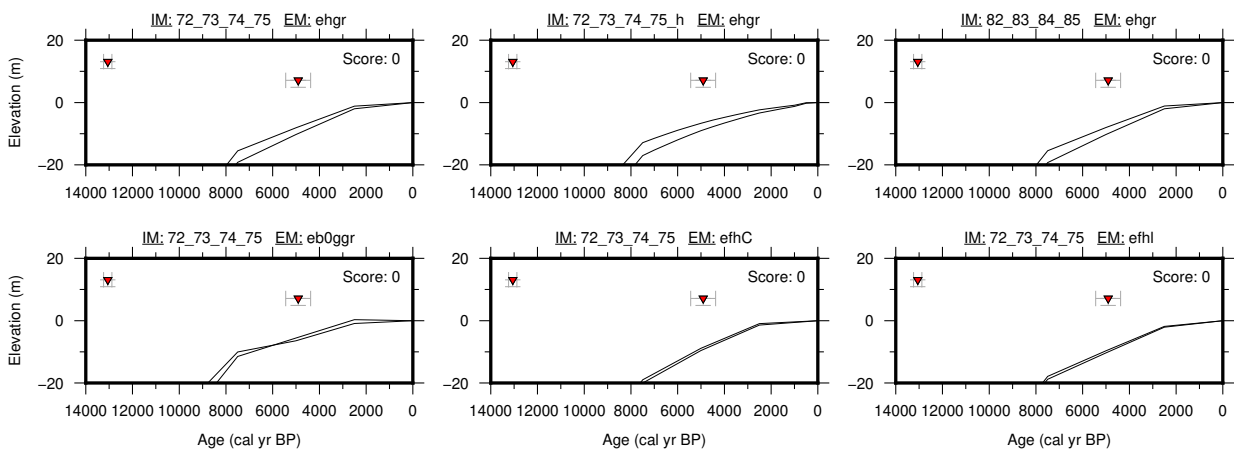
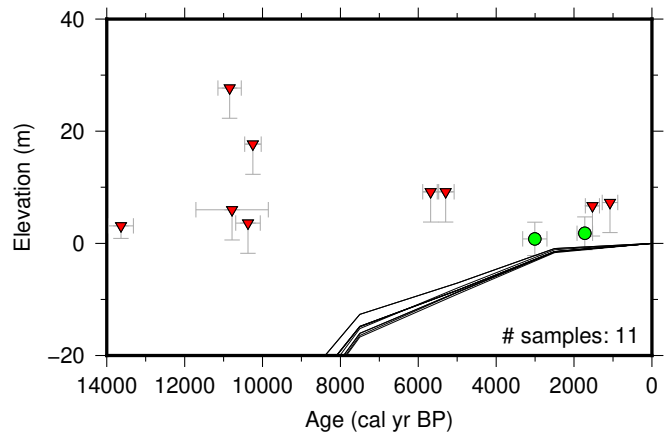
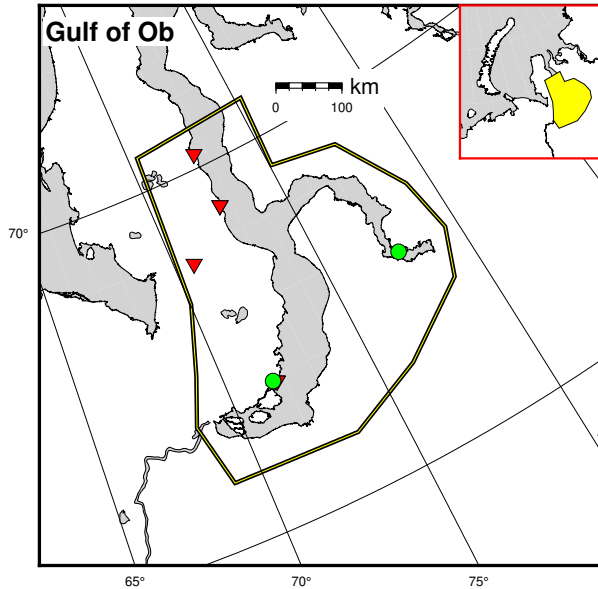


Figure 17: Paleo-sea level and comparison of six models for subregion Kara Sea - Novaya Zemlya, location Baydaratskaya Bay.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point

Reference ice model: 72_73_74_75

Reference Earth Model: ehgr

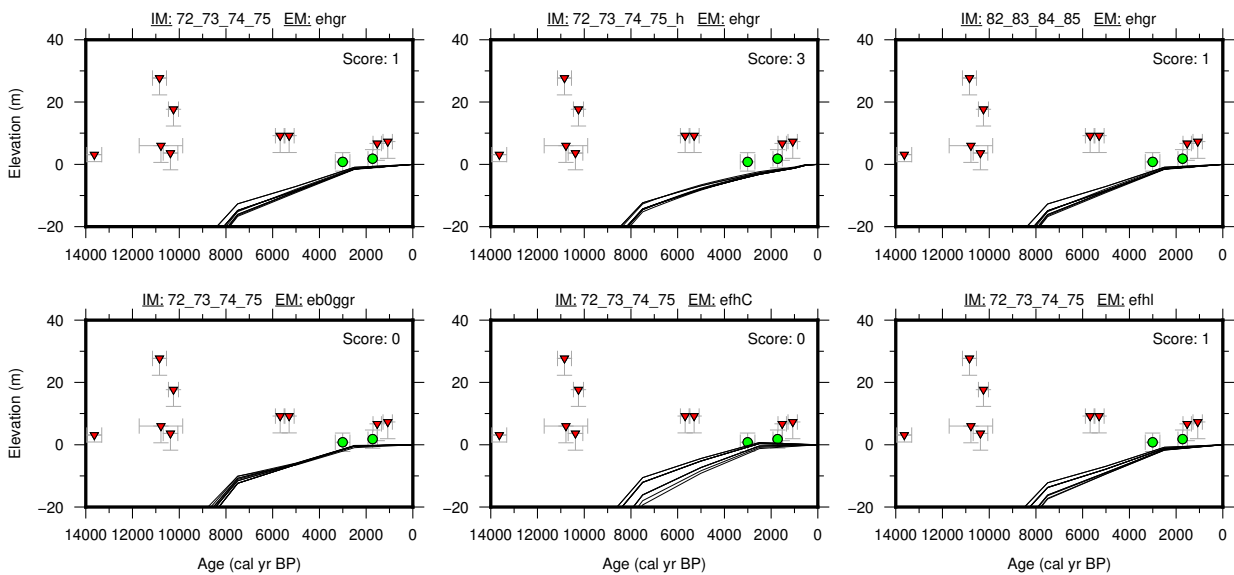
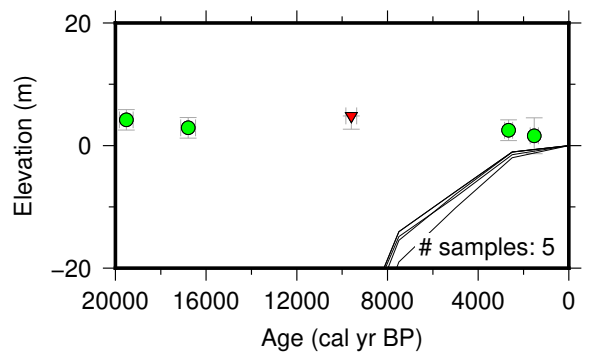
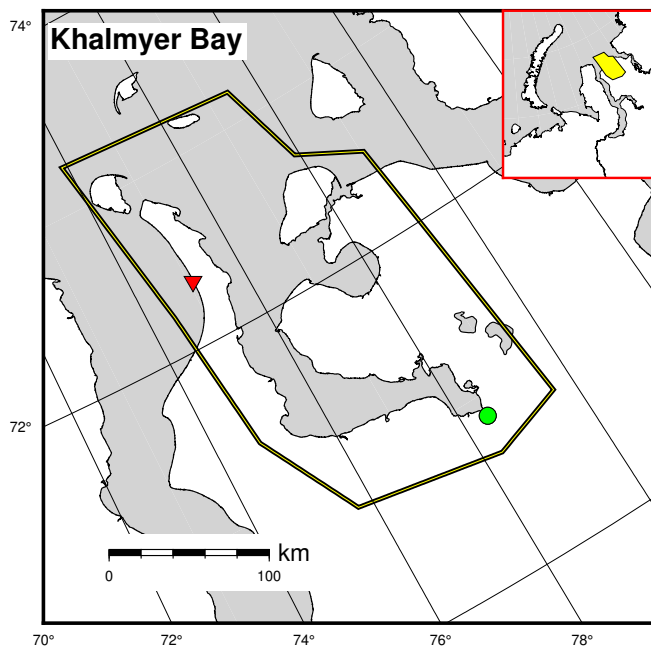


Figure 18: Paleo-sea level and comparison of six models for subregion Kara Sea - Novaya Zemlya, location Gulf of Ob.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point Reference ice model: 72_73_74_75
 Reference Earth Model: ehgr

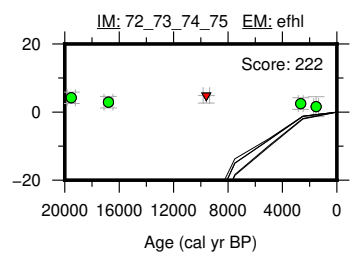
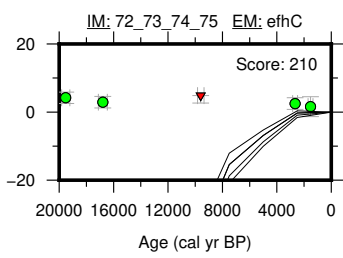
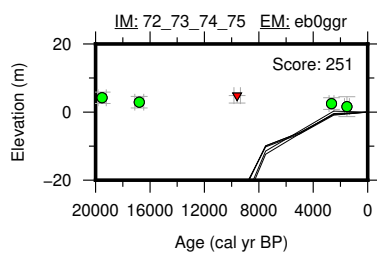
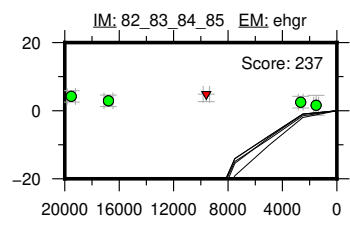
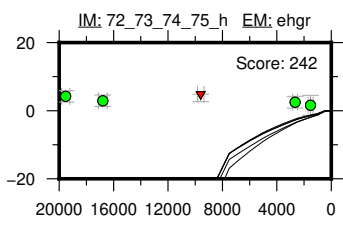
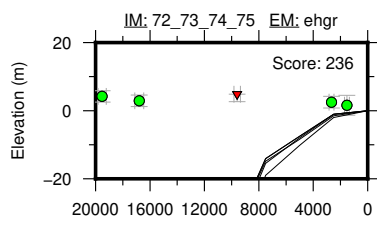
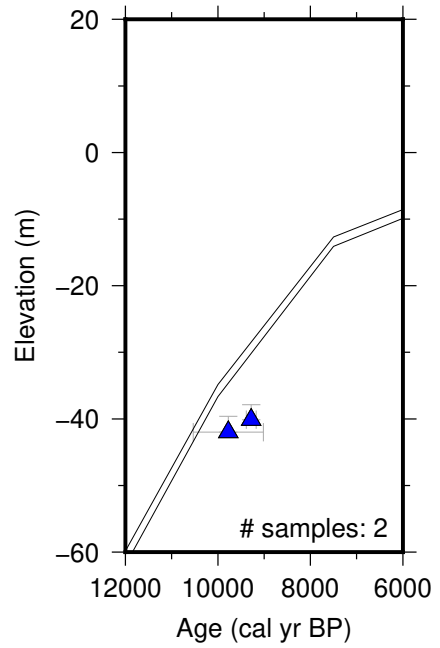
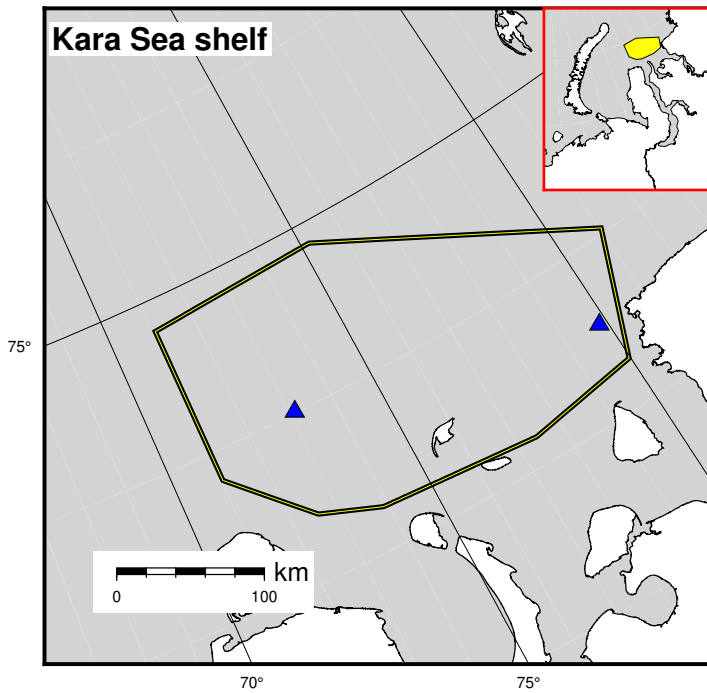


Figure 19: Paleo-sea level and comparison of six models for subregion Kara Sea - Novaya Zemlya, location Khalmyer Bay.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point

Reference ice model: 72_73_74_75
Reference Earth Model: ehgr

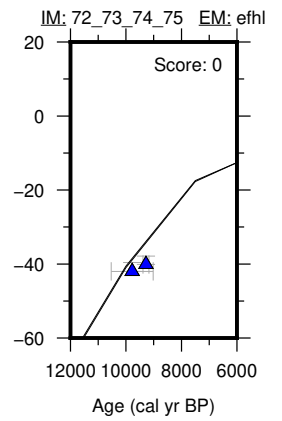
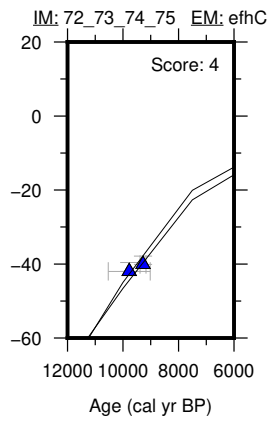
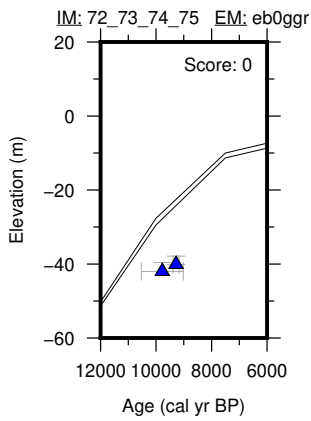
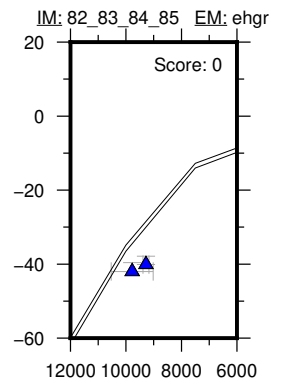
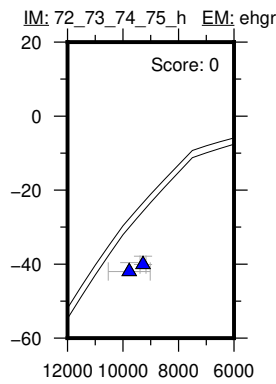
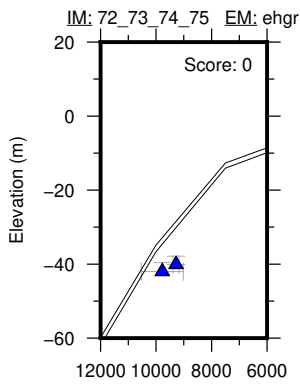


Figure 20: Paleo-sea level and comparison of six models for subregion Kara Sea - Novaya Zemlya, location Kara Sea shelf.

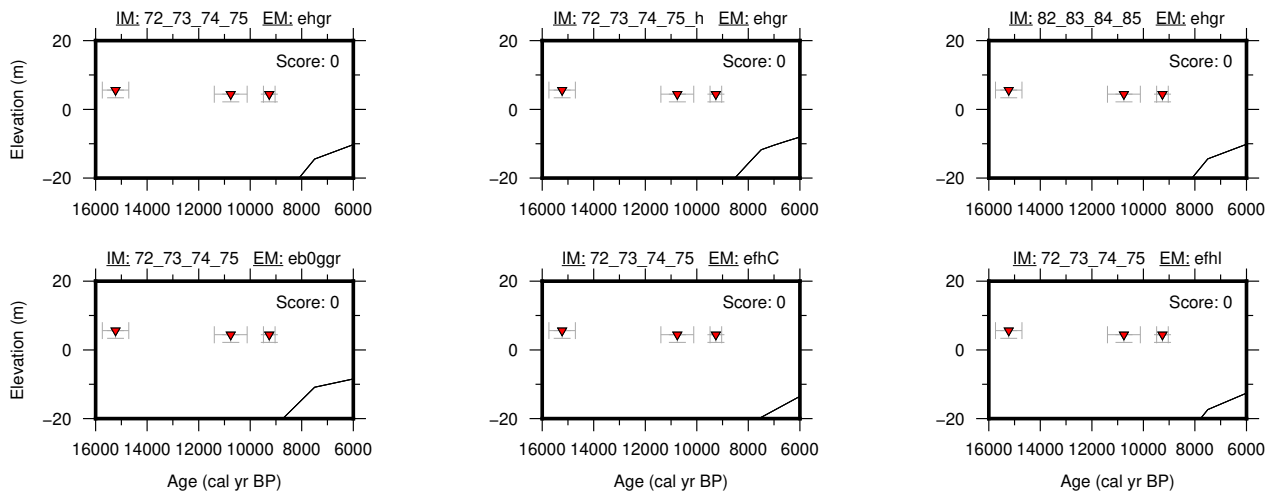
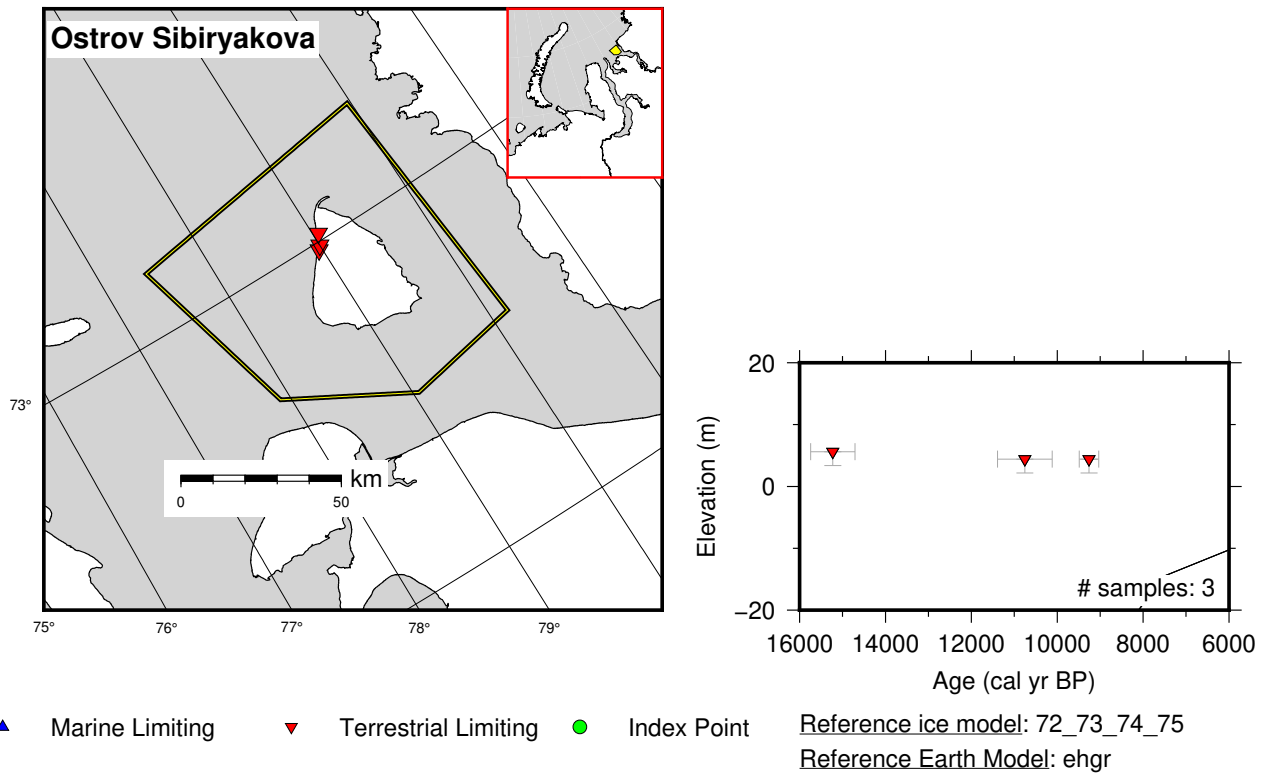


Figure 21: Paleo-sea level and comparison of six models for subregion Kara Sea - Novaya Zemlya, location Ostrov Sibiryakova.

8.3 Southern Barents Sea

References for the data used in each location.

Rolfsoya: Romundset et al. (2011)

Norkinn: Romundset et al. (2011)

Pechengsky: Arslanov et al. (1974); Corner et al. (1999); Koshechkin (1979)

Murmansk: Arslanov et al. (1974); Corner et al. (2001); Gurevich and Liyva (1975); Gurina (1971); Mityaev M. V. (2008); Tanner (1907)

Voronya River: Arslanov et al. (1974); Snyder et al. (1997)

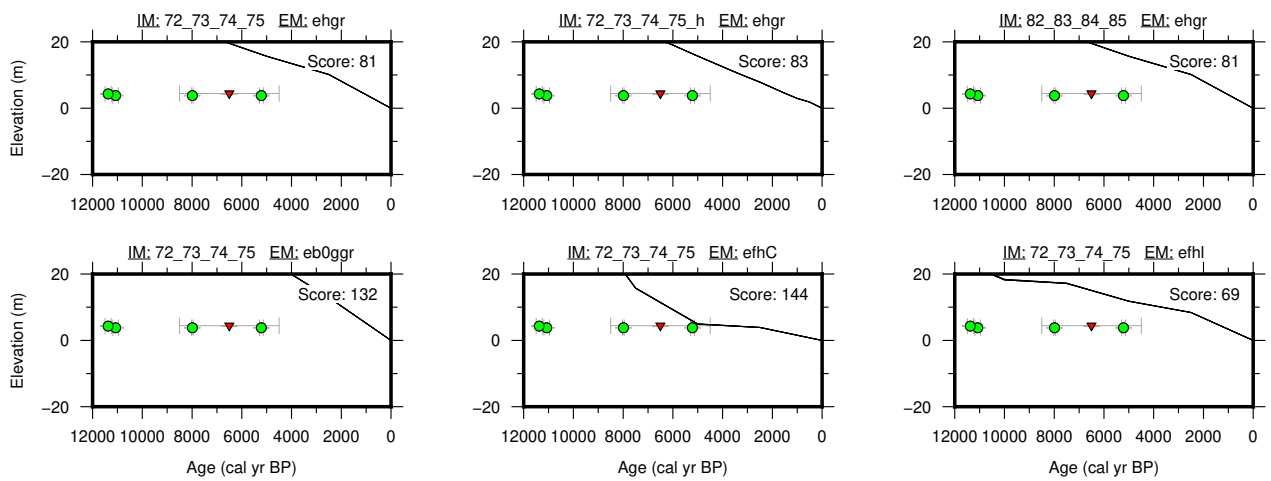
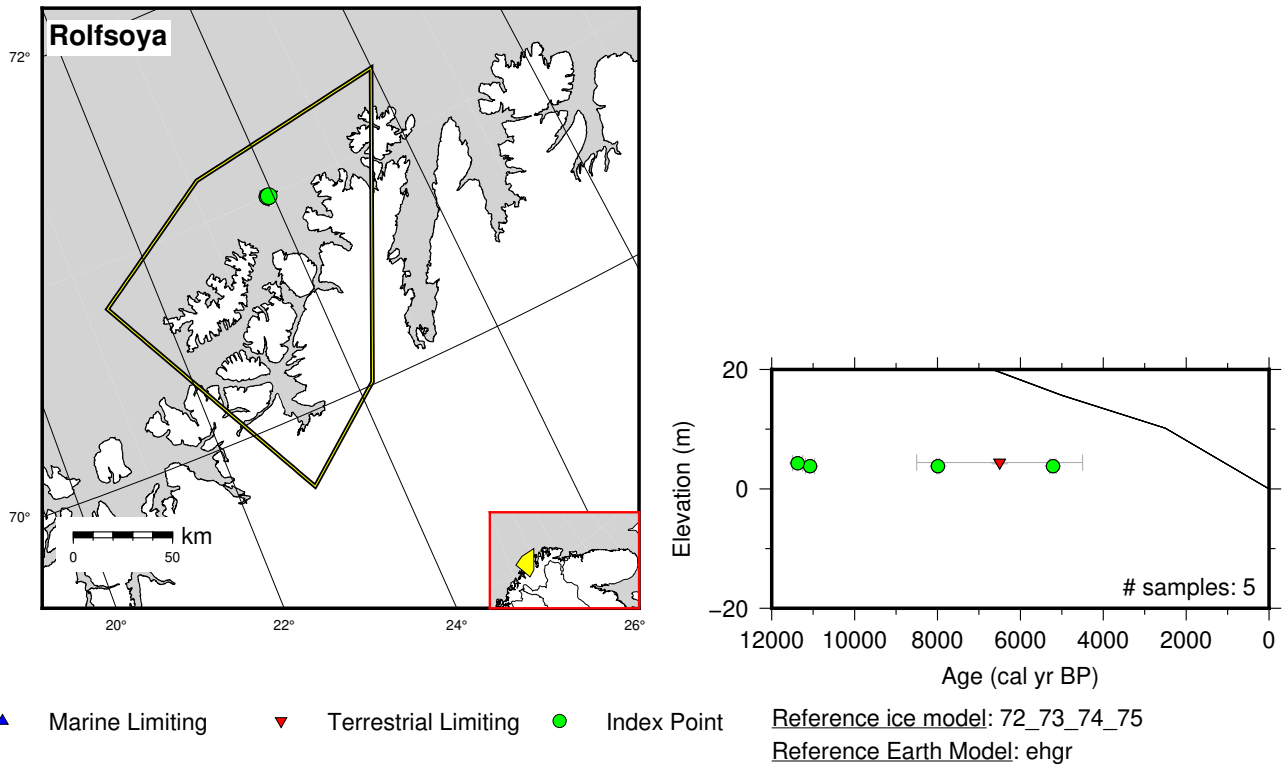


Figure 22: Paleo-sea level and comparison of six models for subregion Southern Barents Sea, location Rolfsoya.

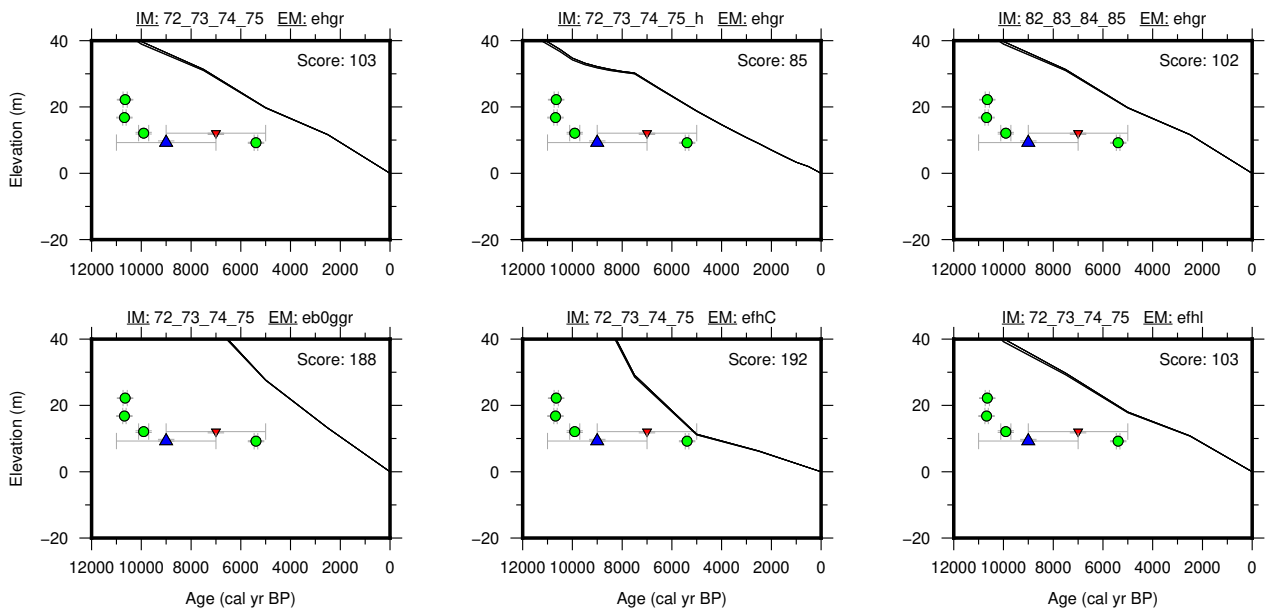
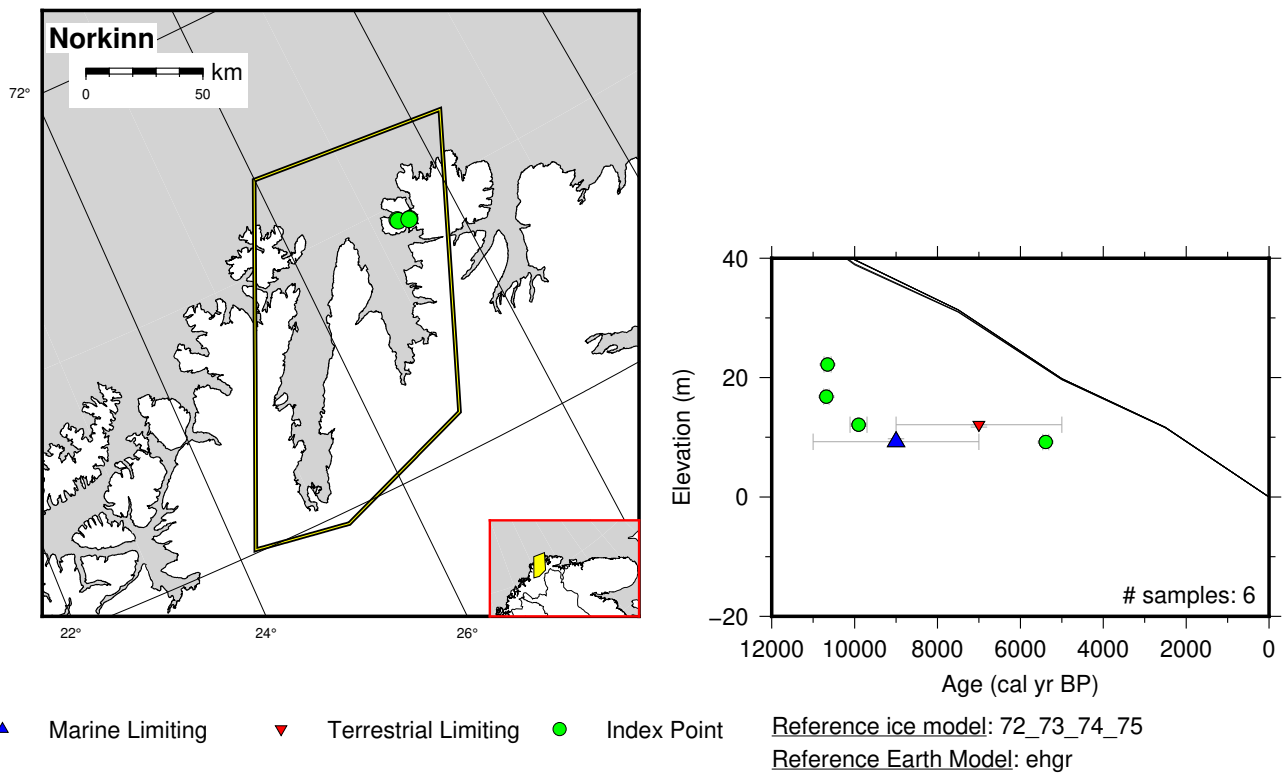


Figure 23: Paleo-sea level and comparison of six models for subregion Southern Barents Sea, location Norkinn.

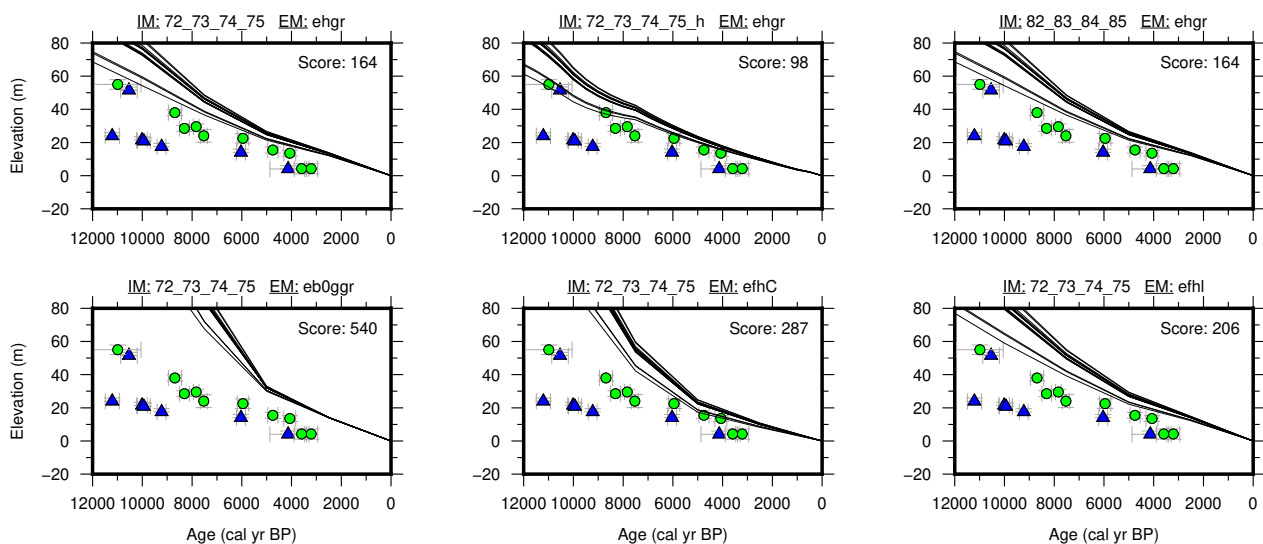
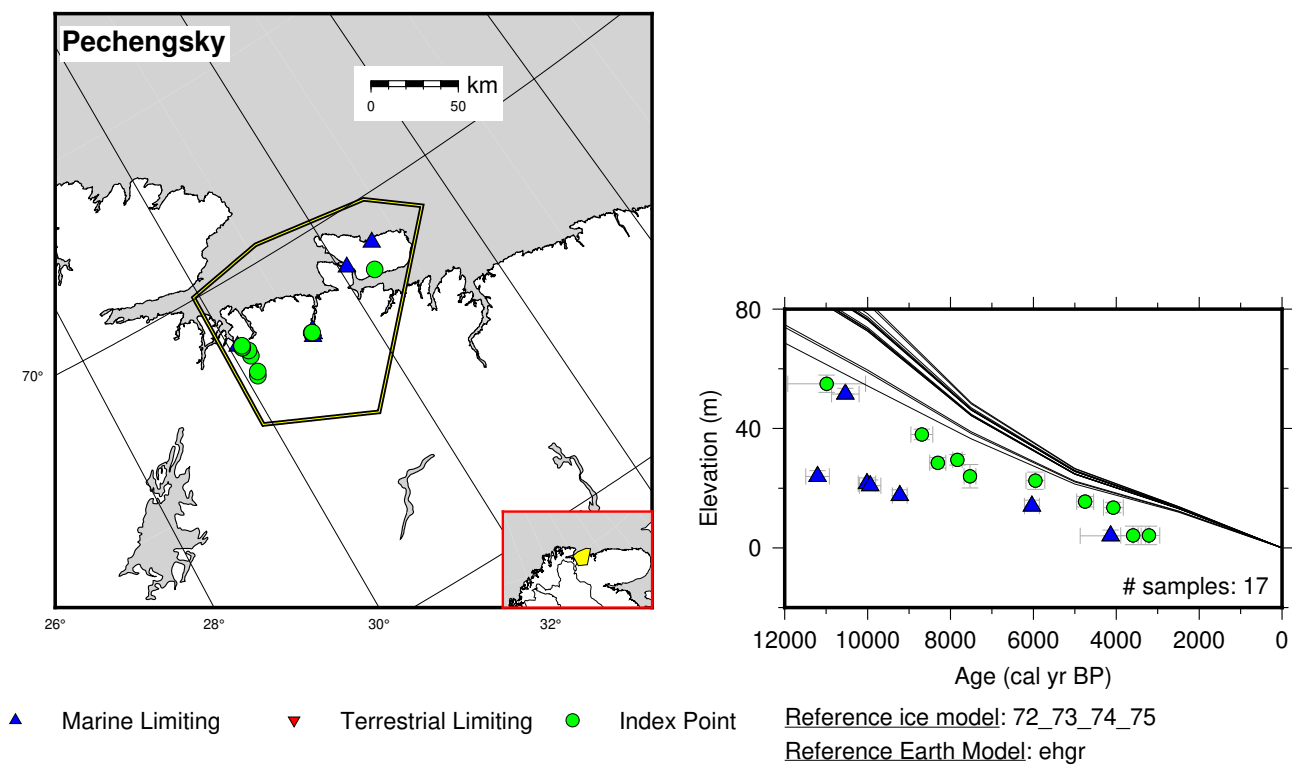


Figure 24: Paleo-sea level and comparison of six models for subregion Southern Barents Sea, location Pechengsky.

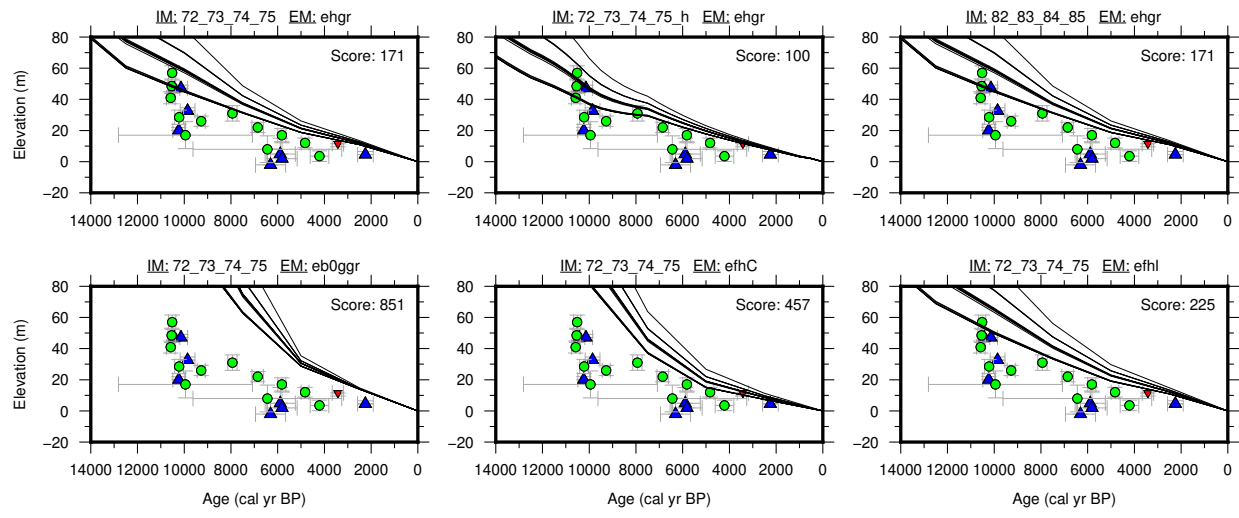
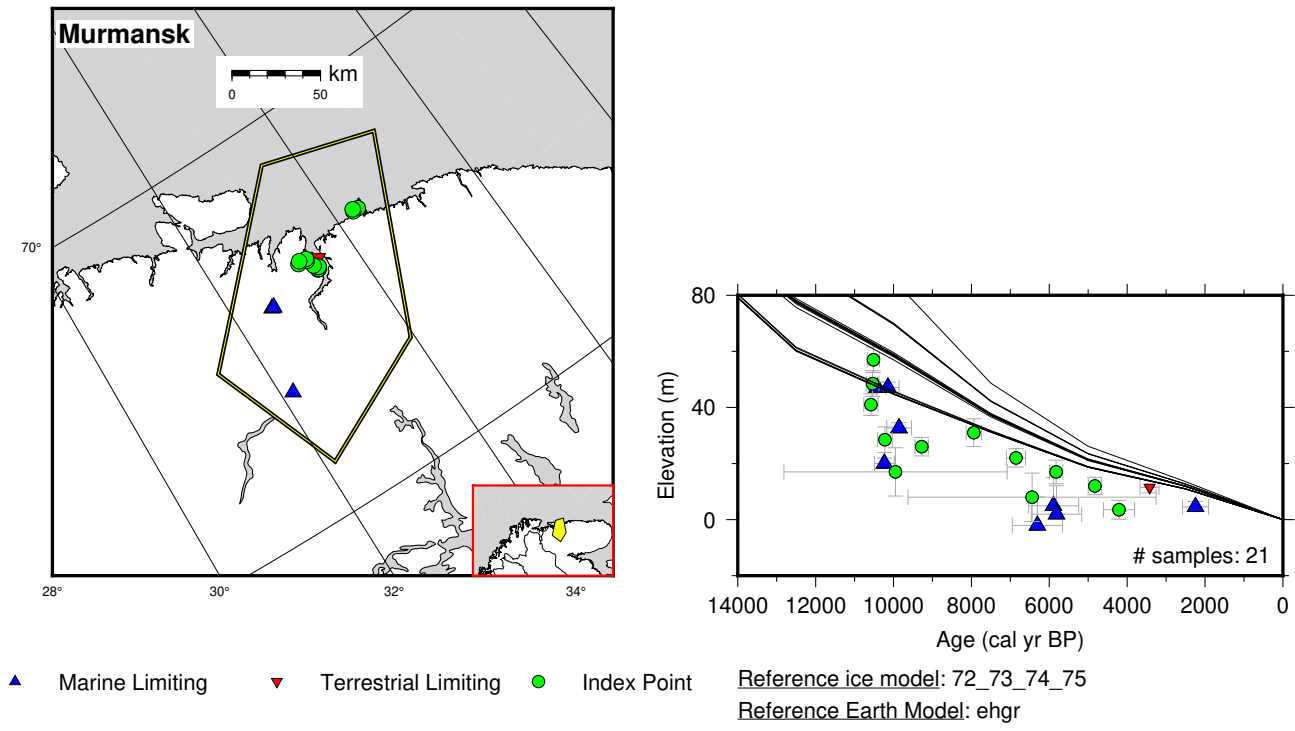


Figure 25: Paleo-sea level and comparison of six models for subregion Southern Barents Sea, location Murmansk.

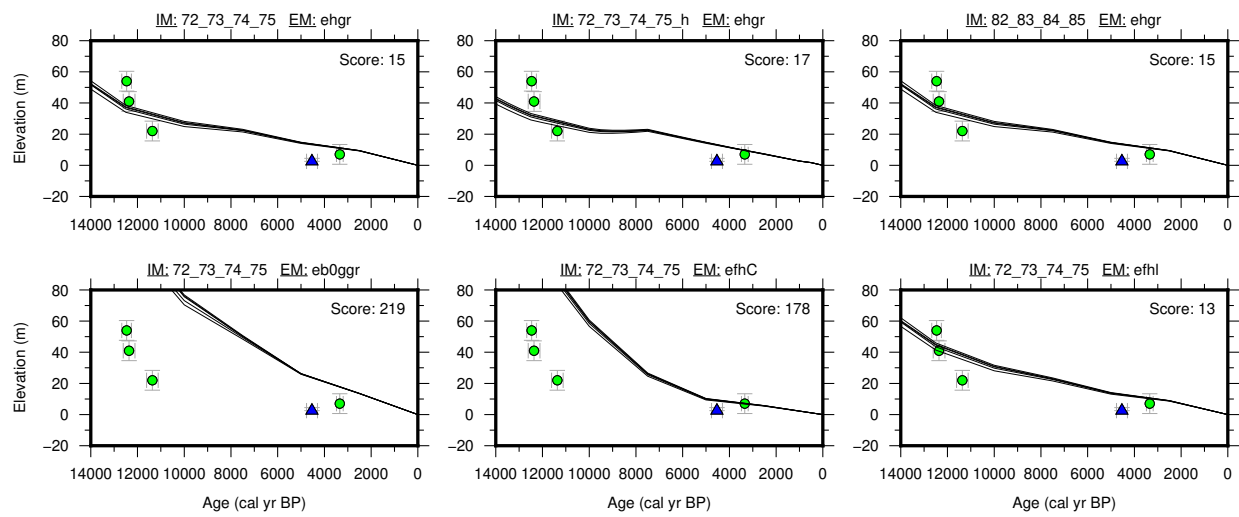
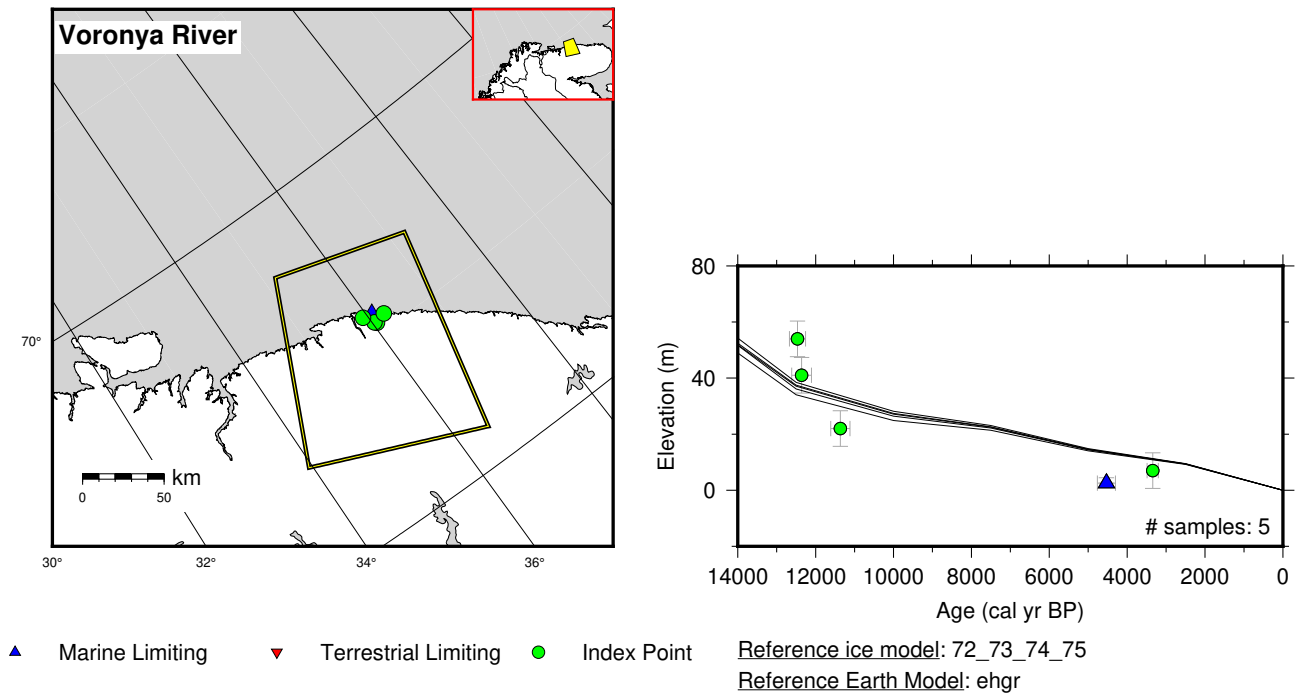


Figure 26: Paleo-sea level and comparison of six models for subregion Southern Barents Sea, location Voronya River.

8.4 Svalbard

References for the data used in each location.

Bockfjorden: Salvigsen and Høgvard (2006)

Broggerhalvoya: Forman et al. (1987, 2004)

Ytterdalen: Landvik et al. (1987)

Sorkapp Land: Salvigsen and Elgersma (1993)

Agardbukta: Salvigsen and Mangerud (1991)

Southern Edgeoya: Bondevik et al. (1995)

Diskobukta: Bondevik et al. (1995)

Humla: Bondevik et al. (1995)

Kapp Ziehen: Bondevik et al. (1995)

Svartknausflya: Salvigsen (1978)

Kongsoya: Salvigsen (1981)

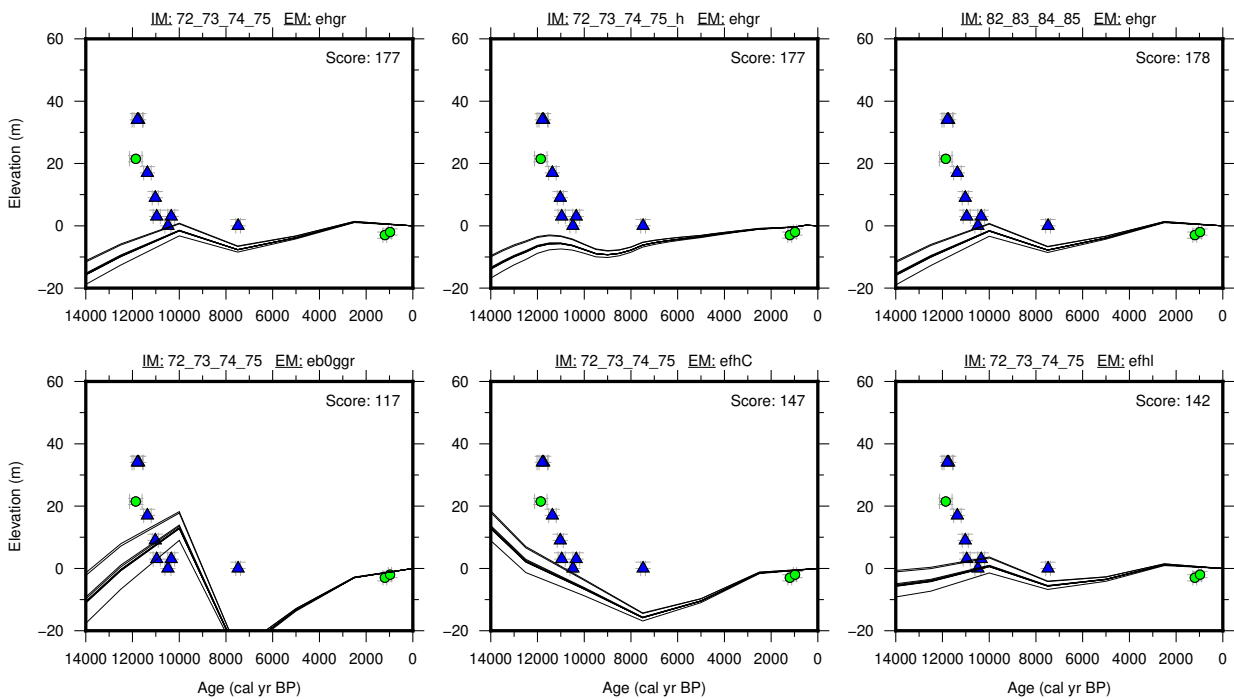
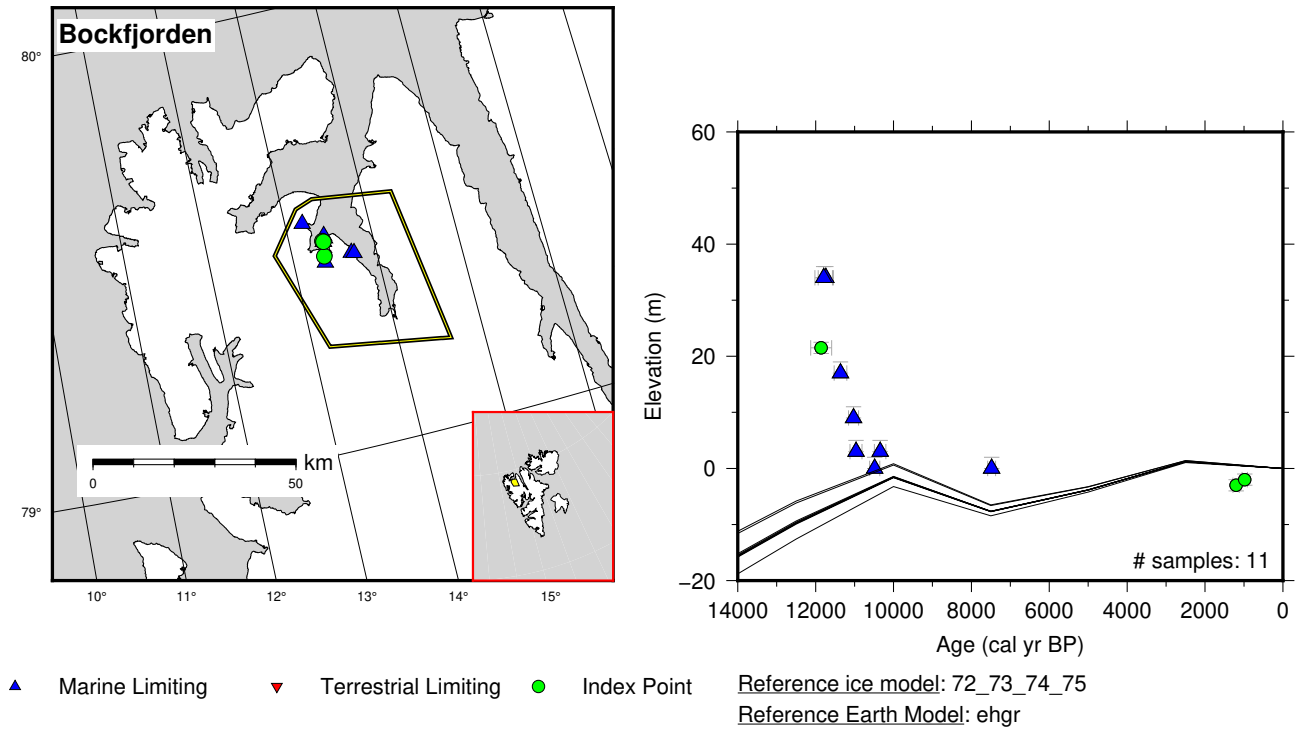


Figure 27: Paleo-sea level and comparison of six models for subregion Svalbard, location Bockfjorden.

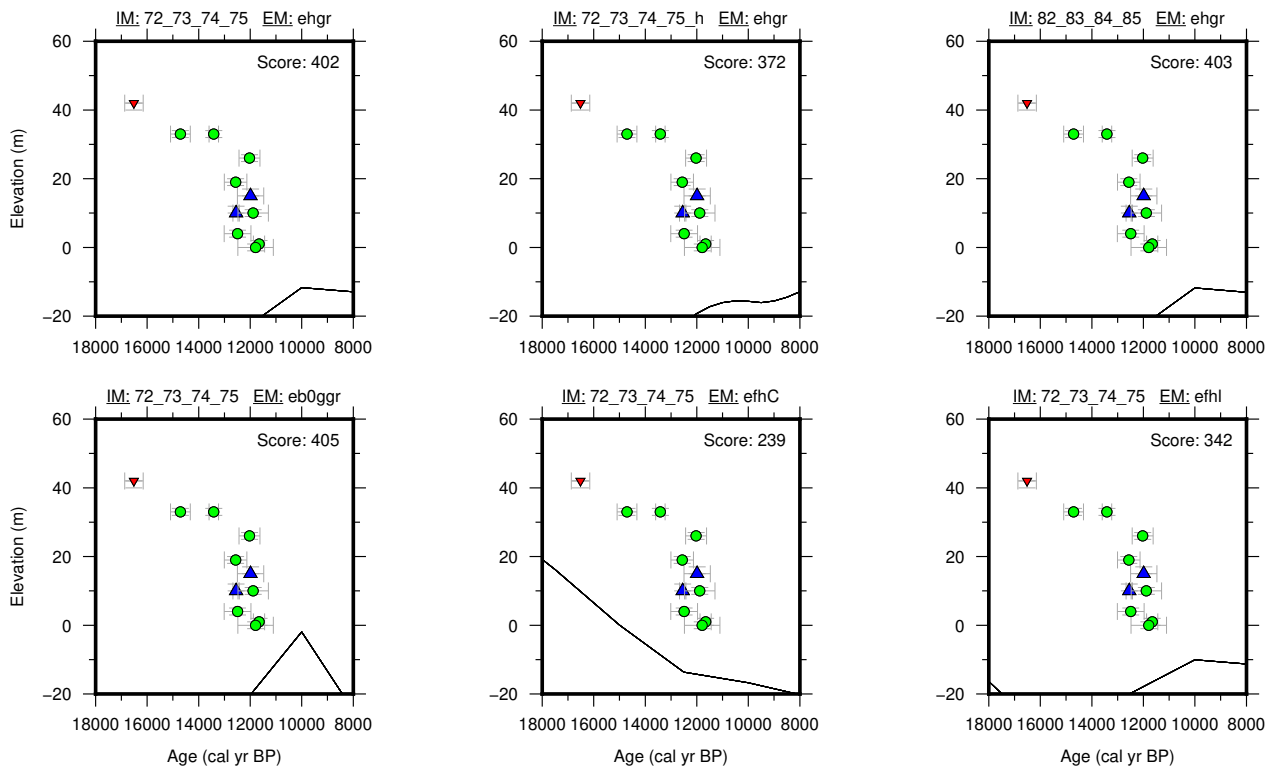
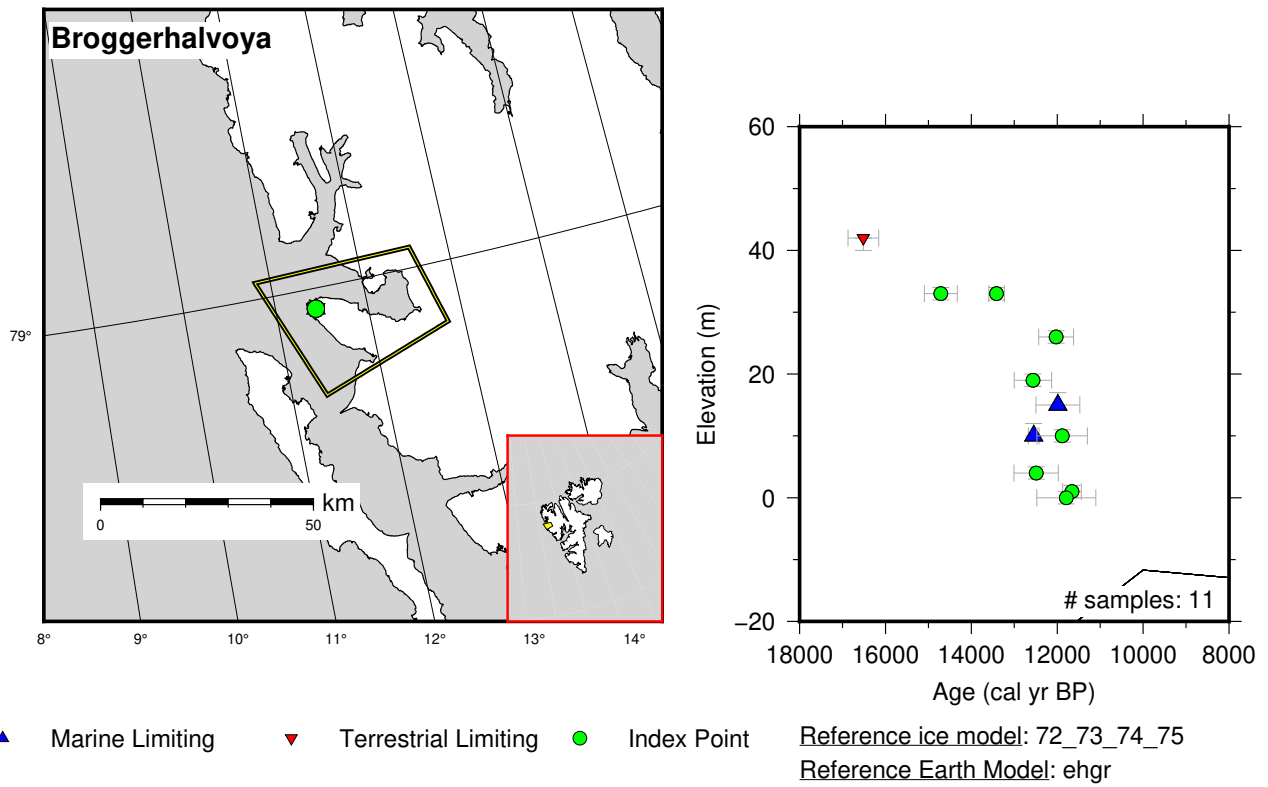
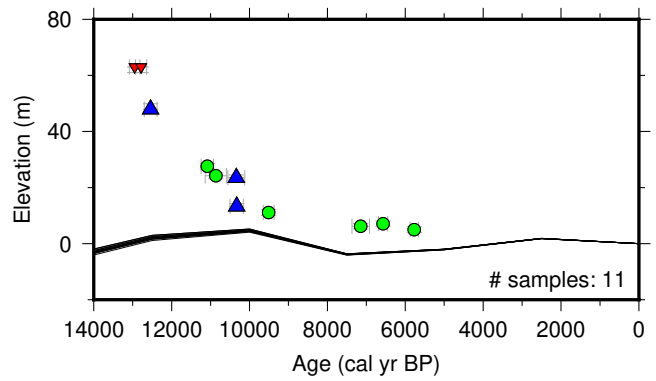
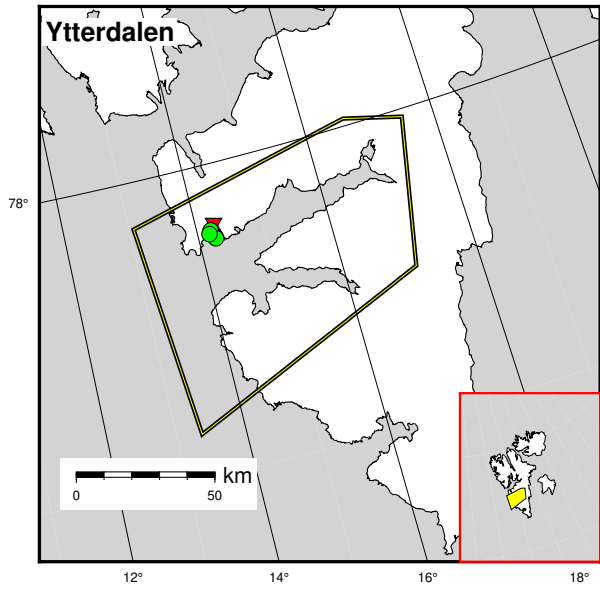


Figure 28: Paleo-sea level and comparison of six models for subregion Svalbard, location Broggerhalvoya.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point

Reference ice model: 72_73_74_75

Reference Earth Model: ehgr

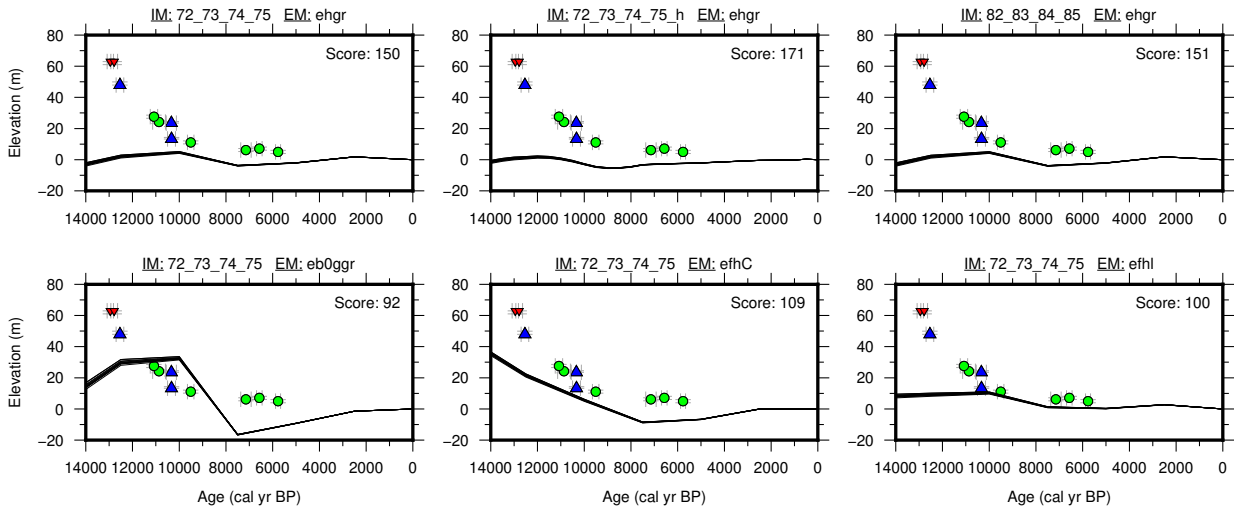


Figure 29: Paleo-sea level and comparison of six models for subregion Svalbard, location Ytterdalen.

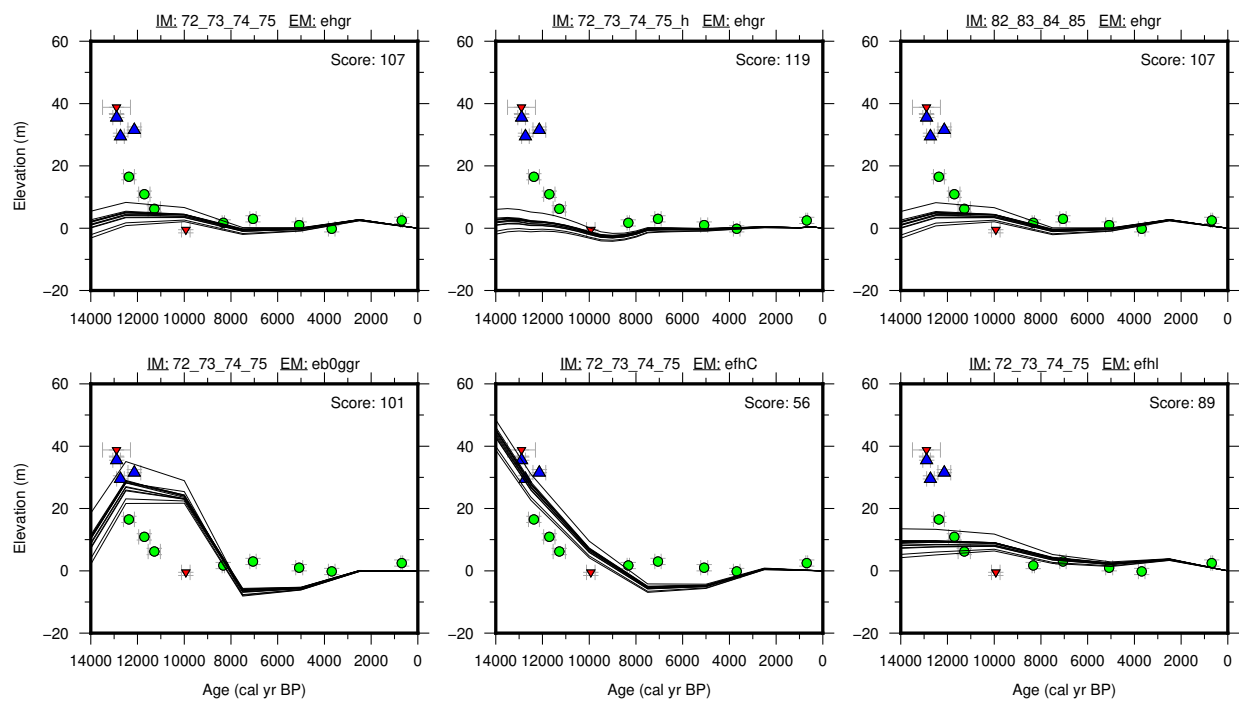
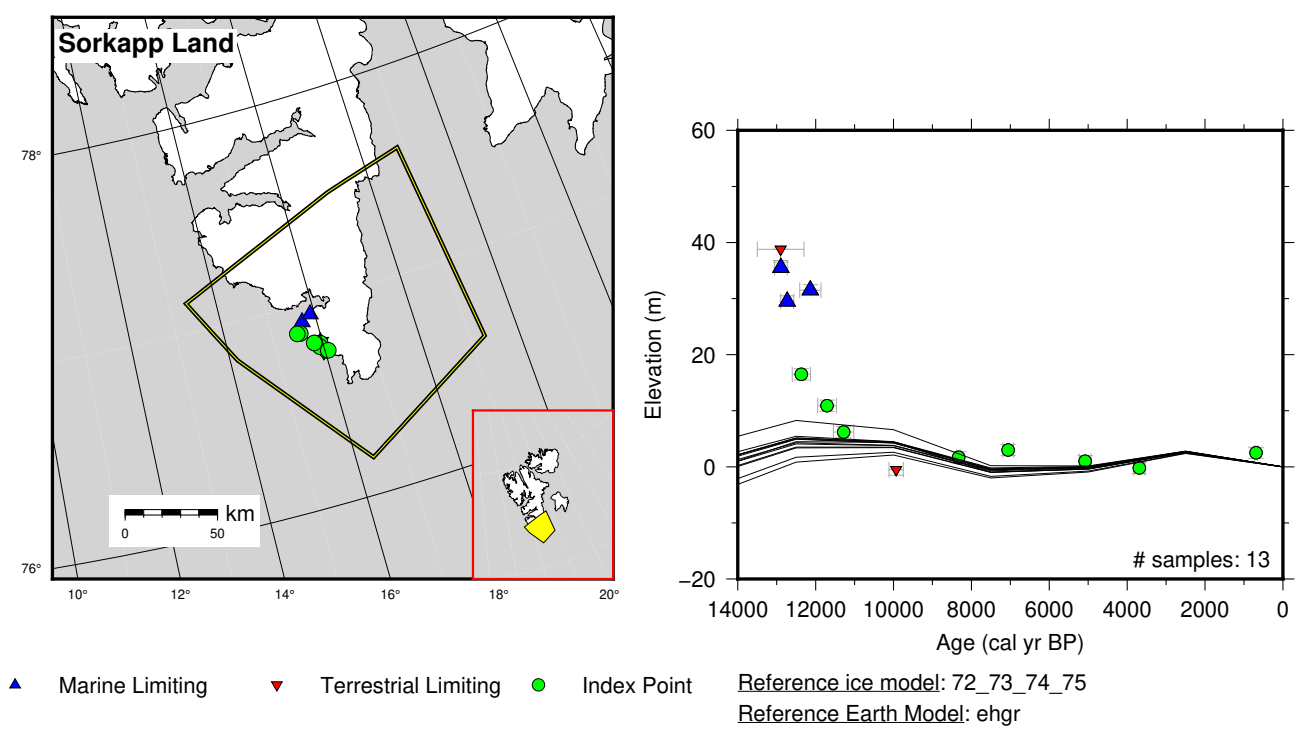


Figure 30: Paleo-sea level and comparison of six models for subregion Svalbard, location Sorkapp Land.

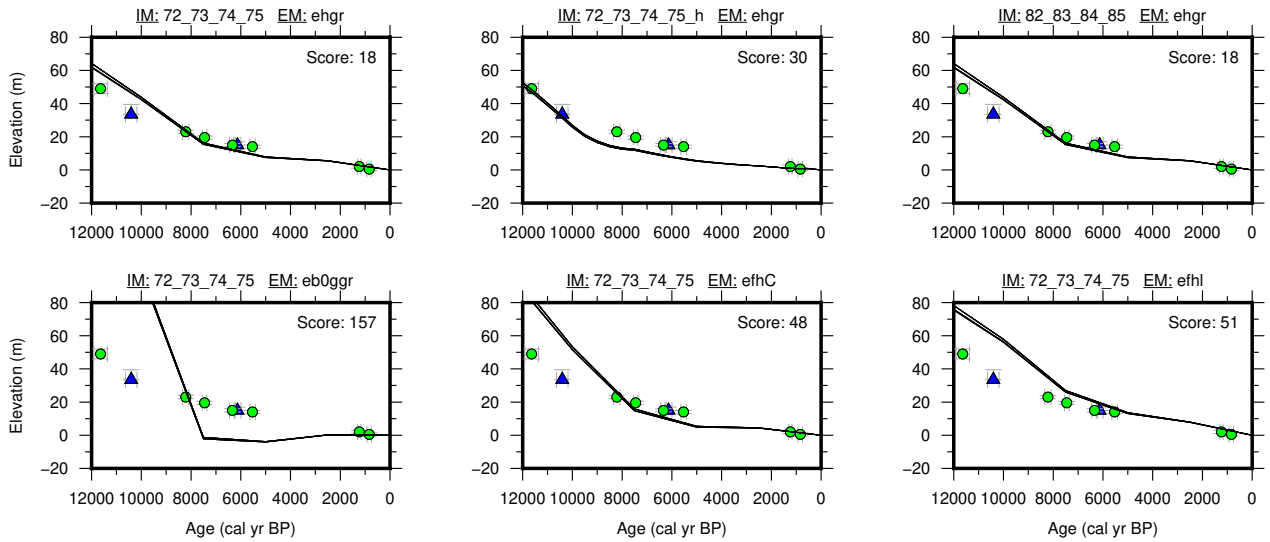
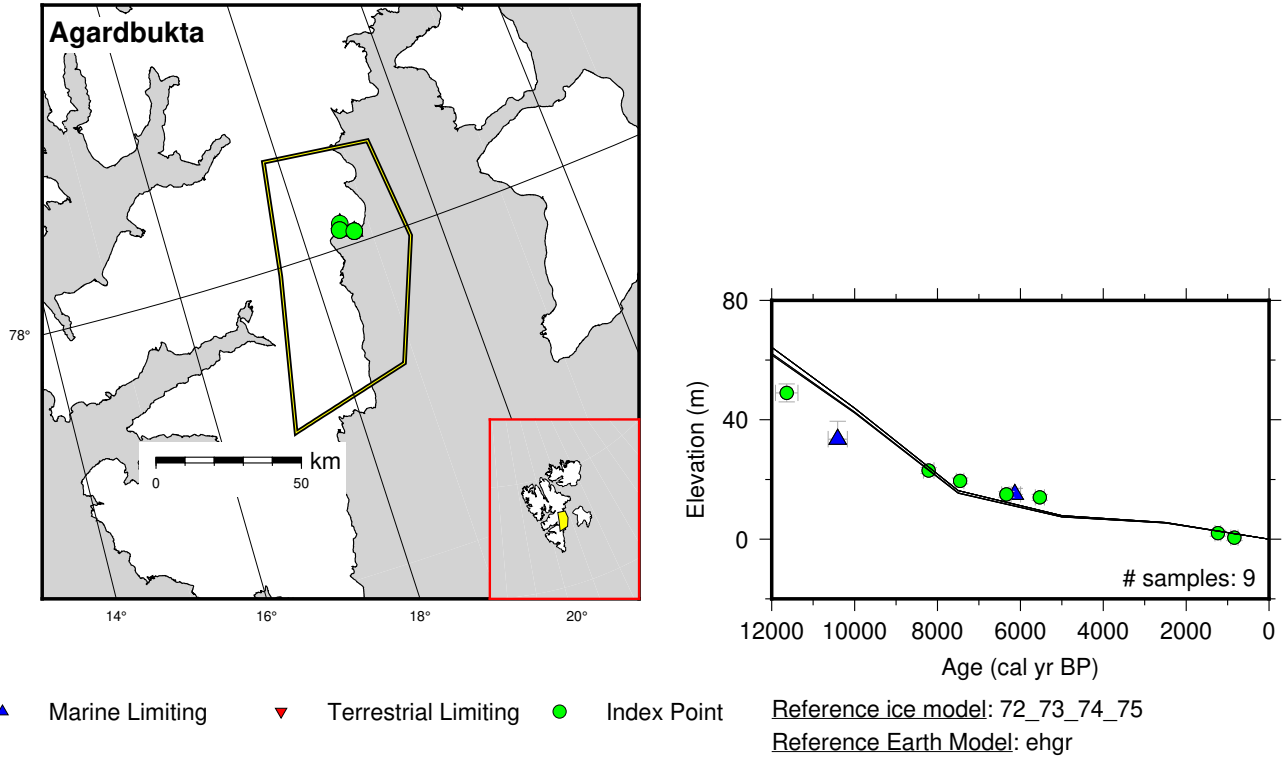


Figure 31: Paleo-sea level and comparison of six models for subregion Svalbard, location Agardbukta.

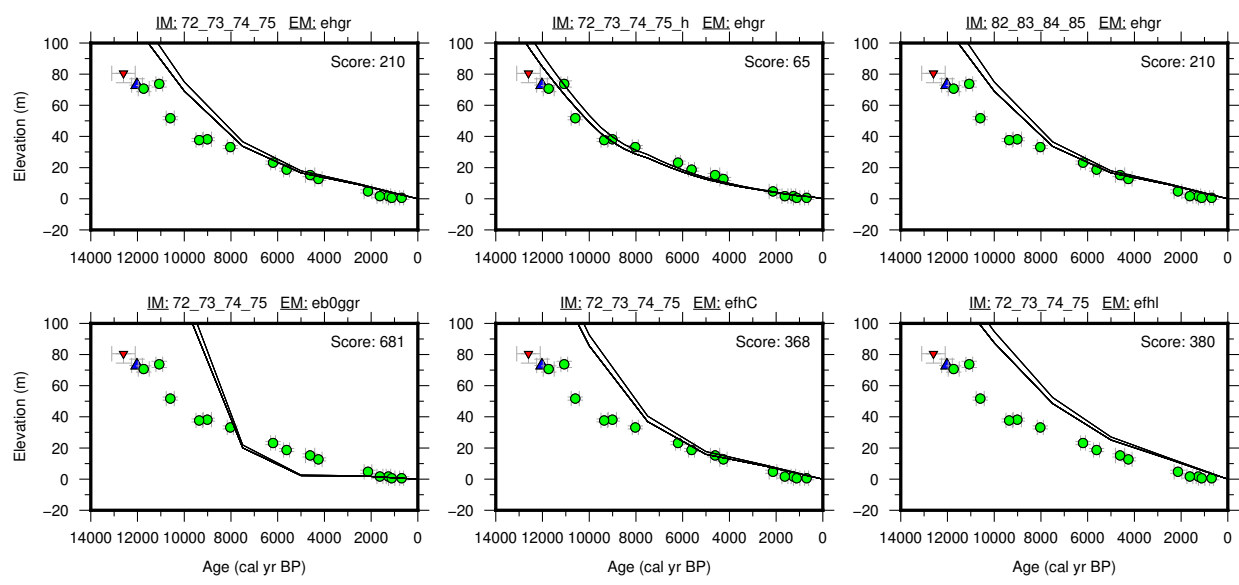
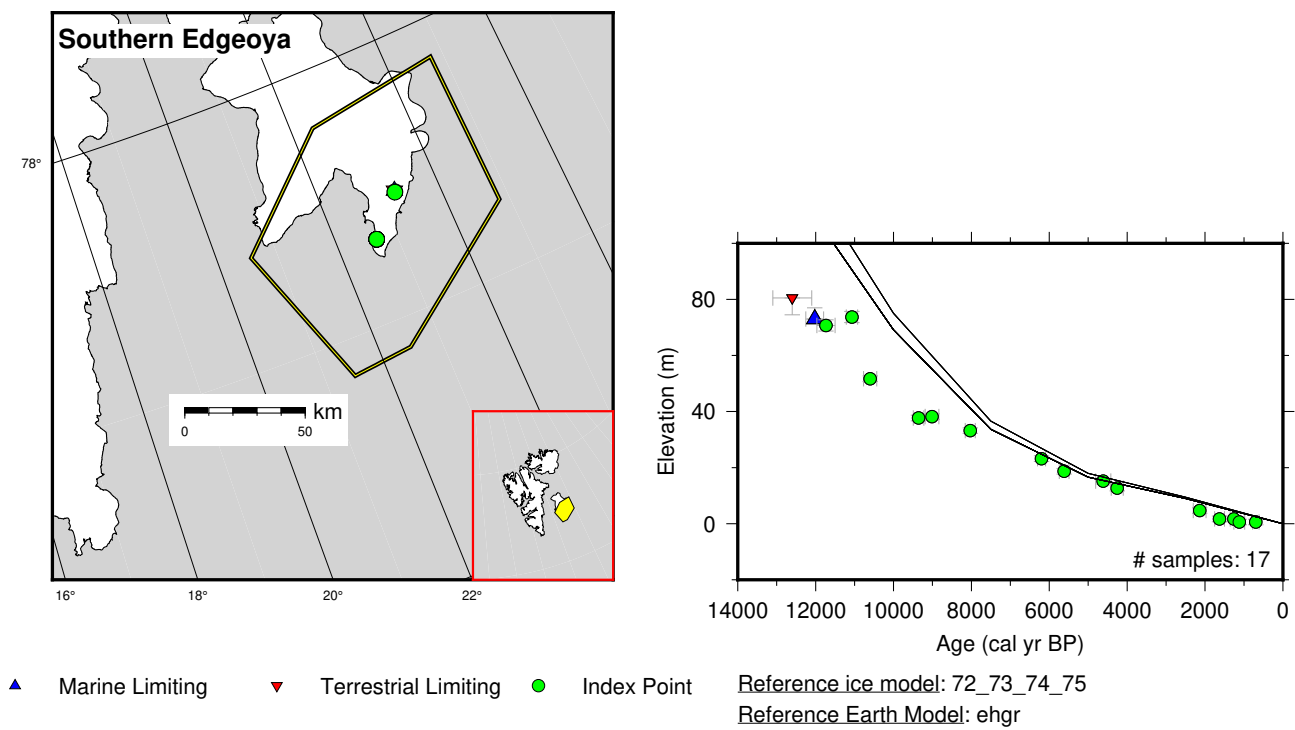


Figure 32: Paleo-sea level and comparison of six models for subregion Svalbard, location Southern Edgeoya.

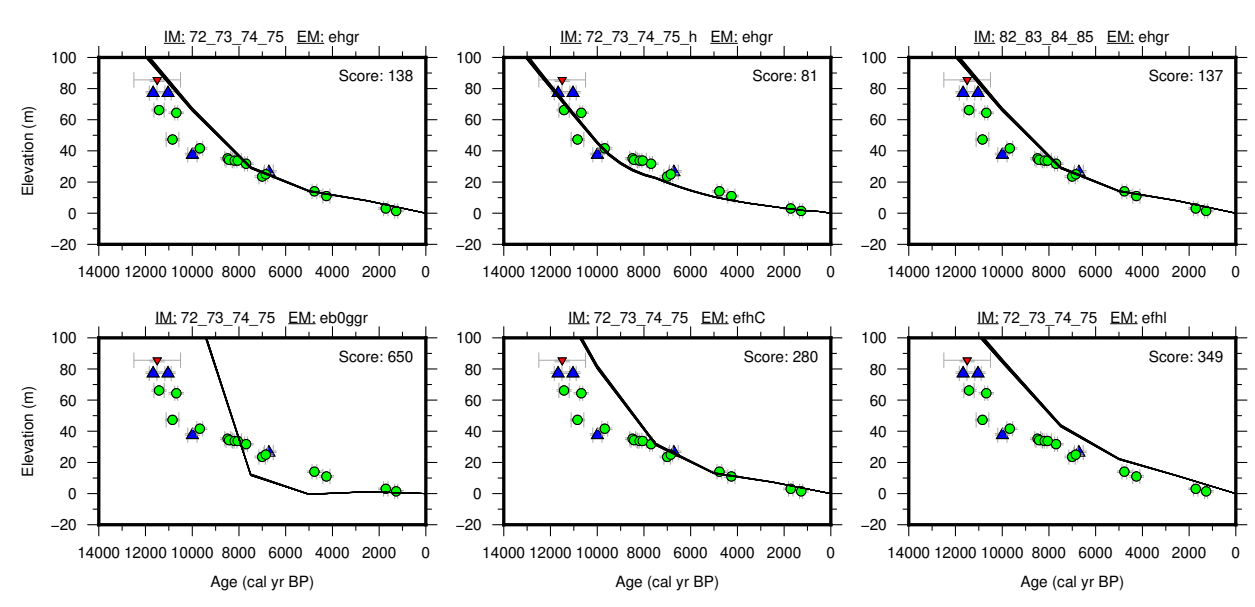
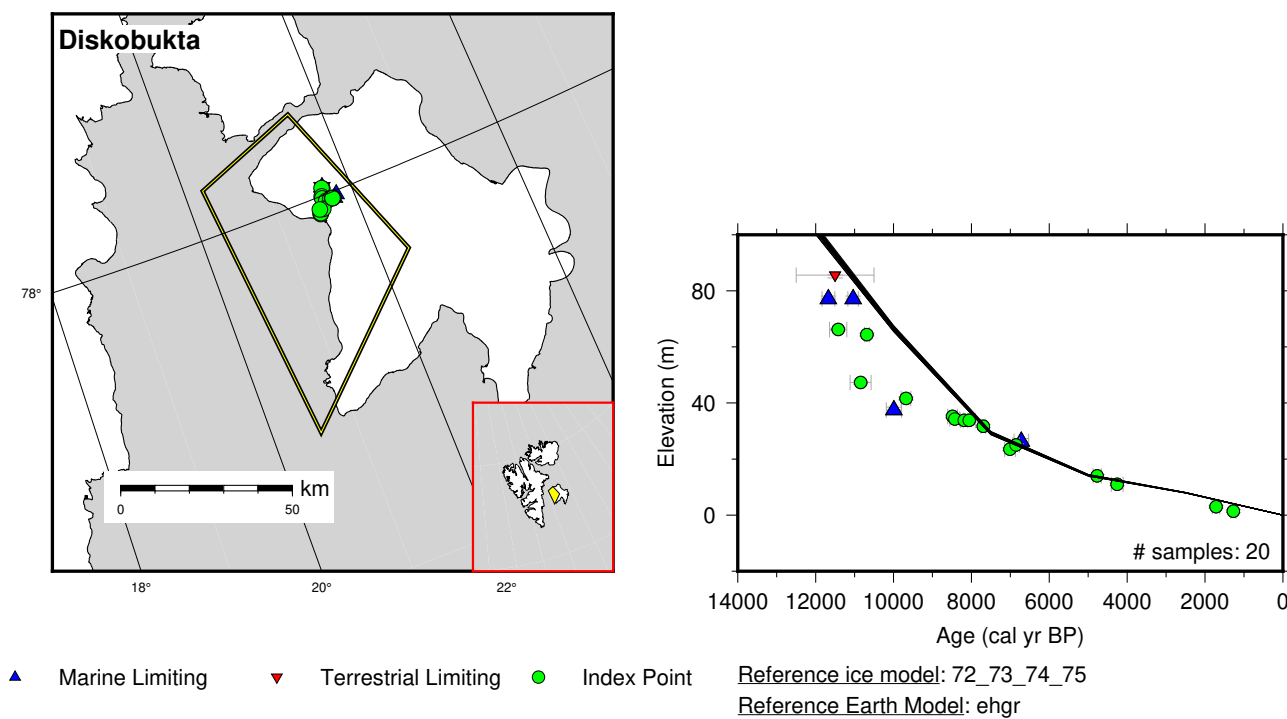


Figure 33: Paleo-sea level and comparison of six models for subregion Svalbard, location Diskobukta.

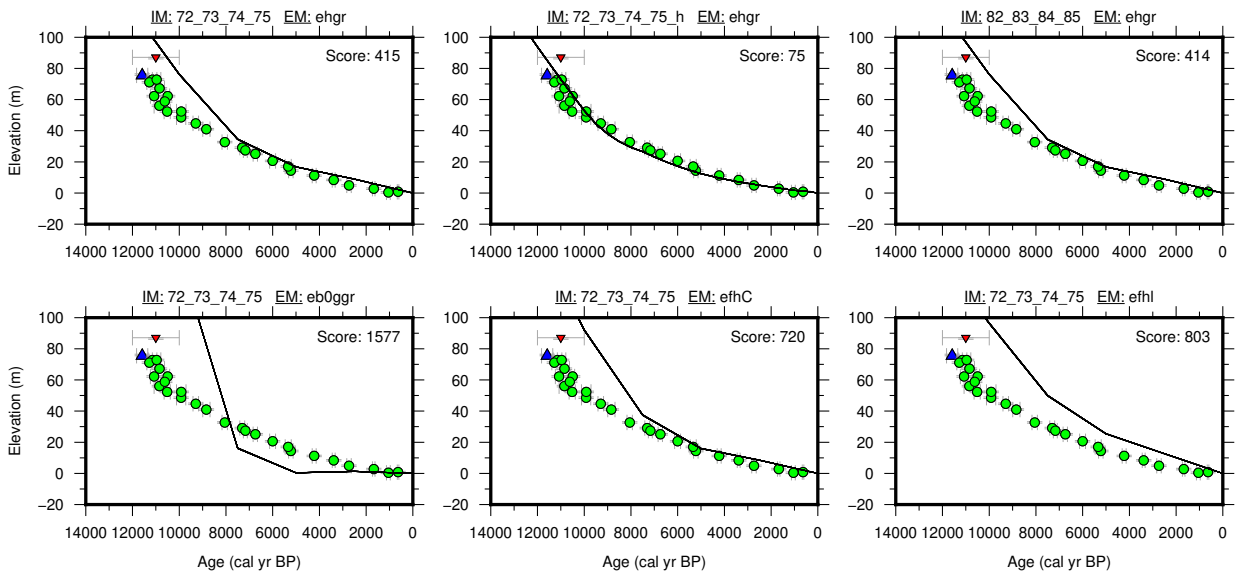
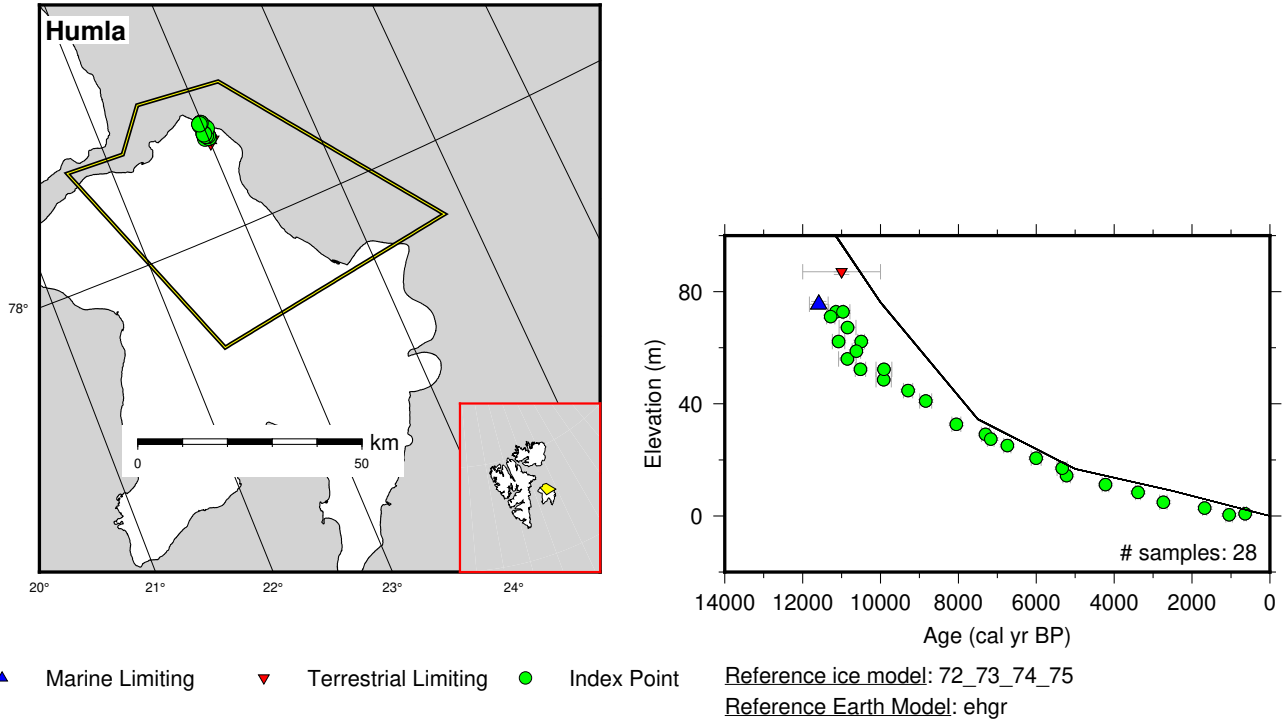


Figure 34: Paleo-sea level and comparison of six models for subregion Svalbard, location Humla.

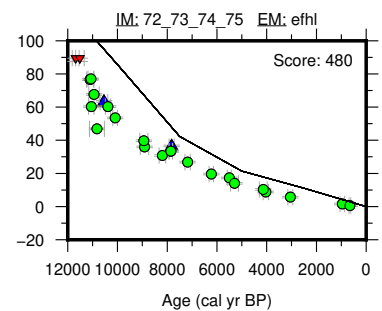
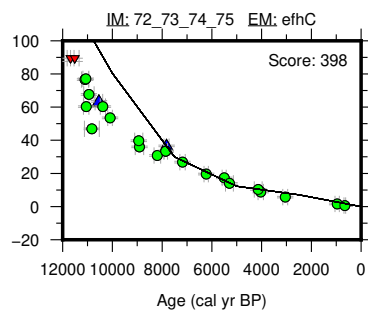
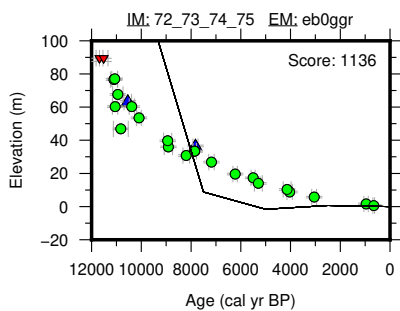
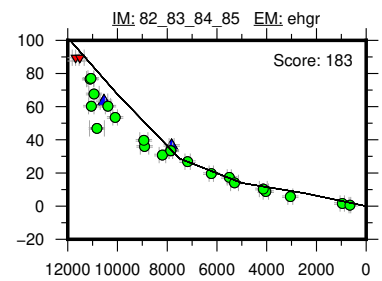
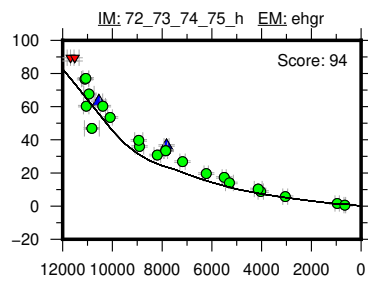
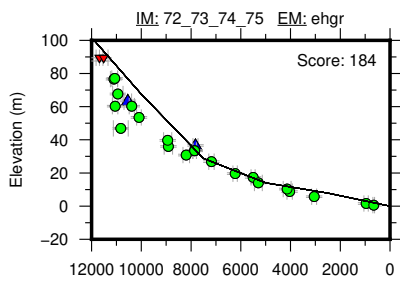
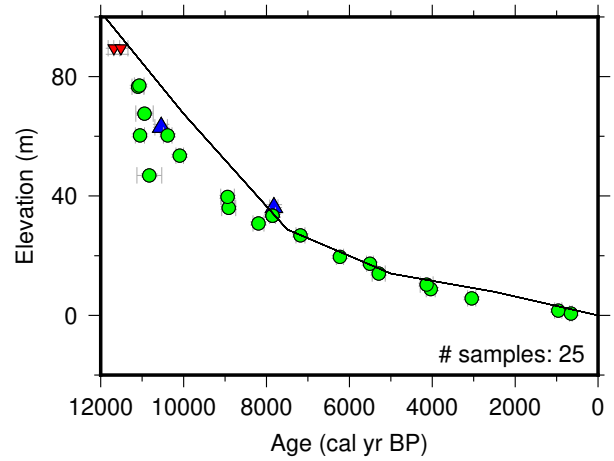
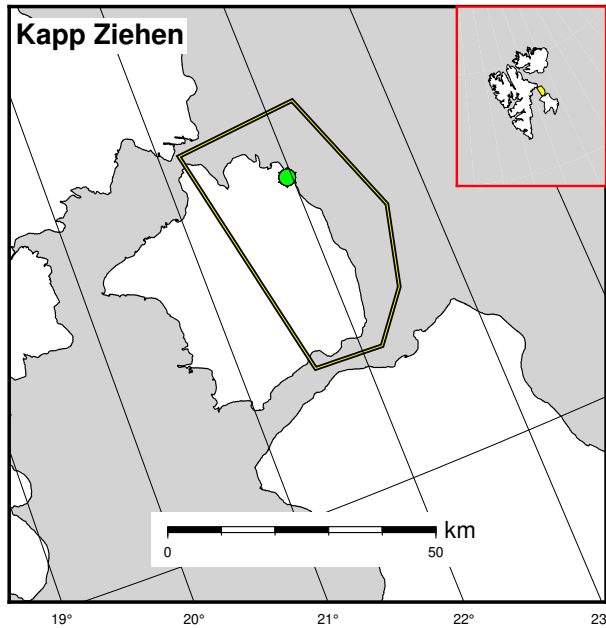
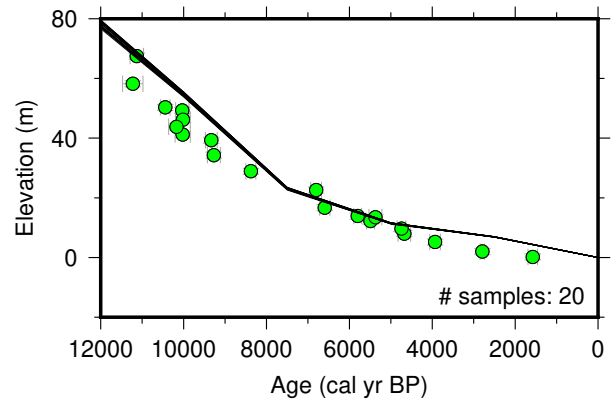
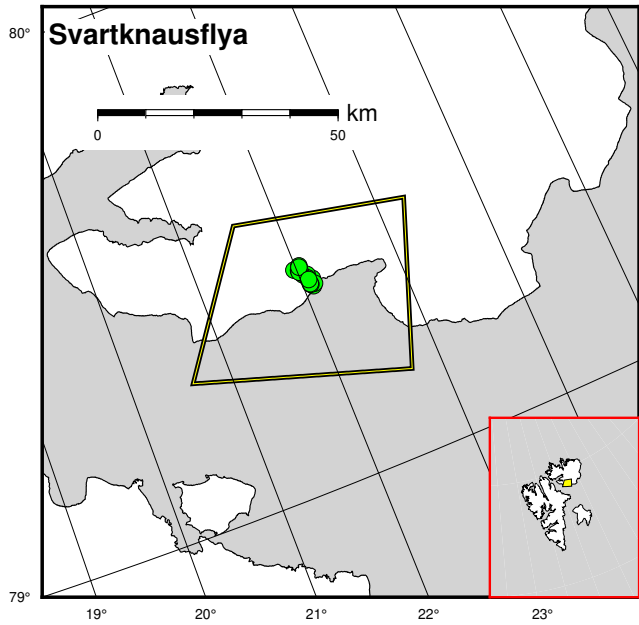


Figure 35: Paleo-sea level and comparison of six models for subregion Svalbard, location Kapp Ziehen.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point Reference ice model: 72_73_74_75
 Reference Earth Model: ehgr

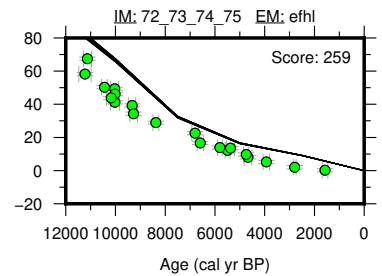
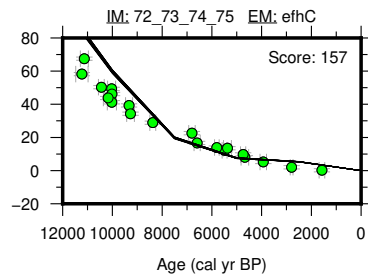
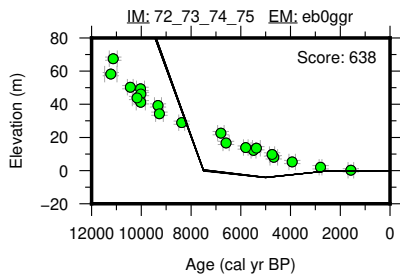
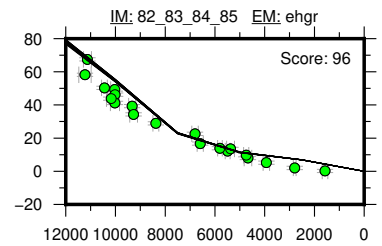
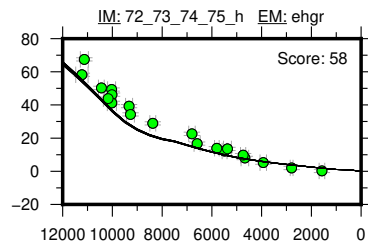
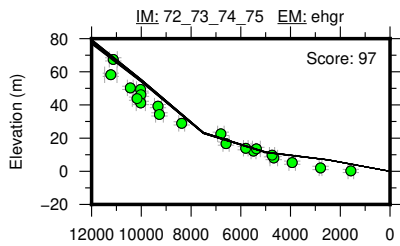


Figure 36: Paleo-sea level and comparison of six models for subregion Svalbard, location Svartknausflya.

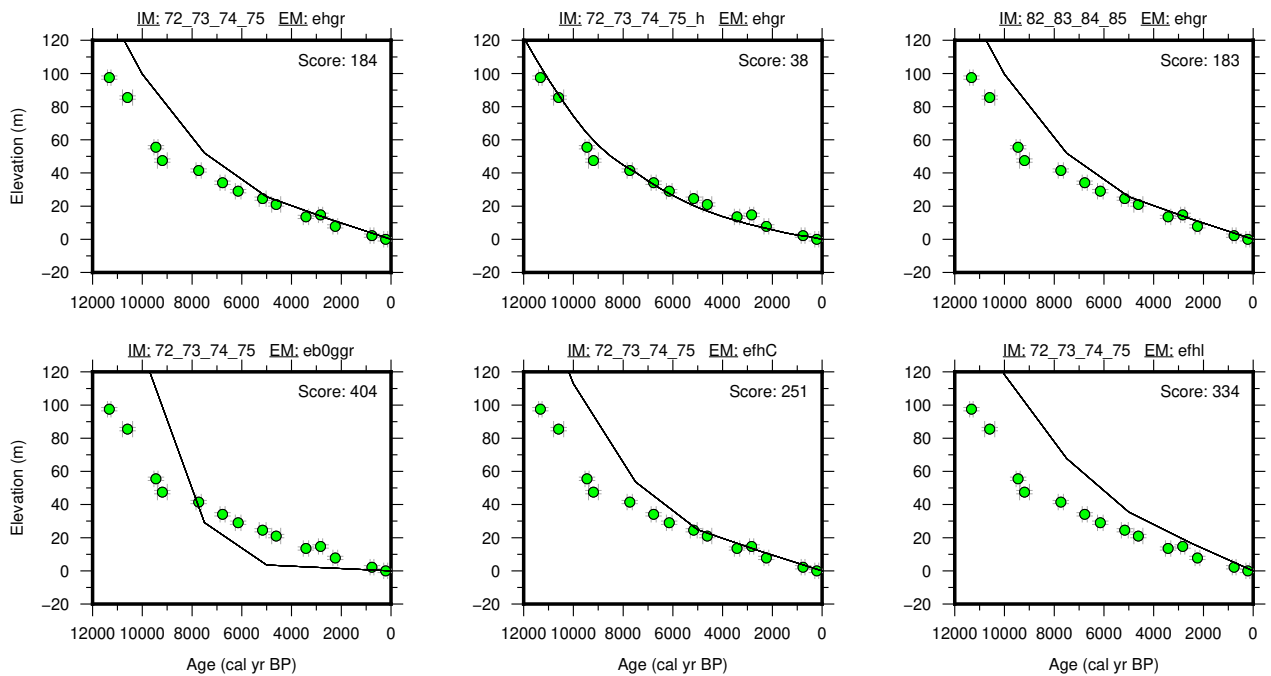
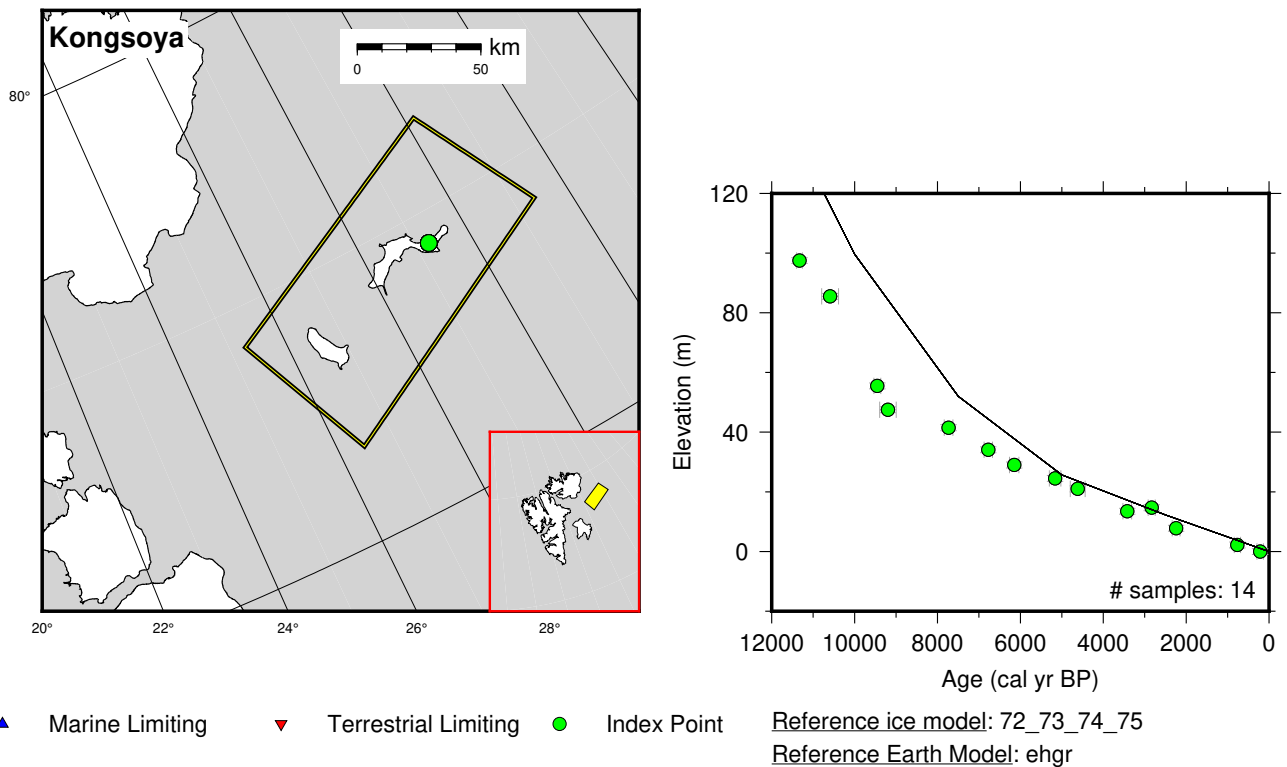


Figure 37: Paleo-sea level and comparison of six models for subregion Svalbard, location Kongsøya.

8.5 Western Siberia

References for the data used in each location.

Severnaya Zemlya: Bolshiyarov and Makeev (1995); Raab et al. (2003)

West Laptev Sea: Bauch et al. (1999); Bolshiyarov et al. (2013); Winterfeld et al. (2011)

Olenyok Gulf: Andreev et al. (2004); Bolshiyarov et al. (2013); Makarov (2009)

Lena Delta: Makarov (2009)

New Siberian Islands: Anisimov et al. (2009a); Bolshiyarov et al. (2013); Polyakova et al. (2005)

Zhokhov Island: Anisimov et al. (2009b)

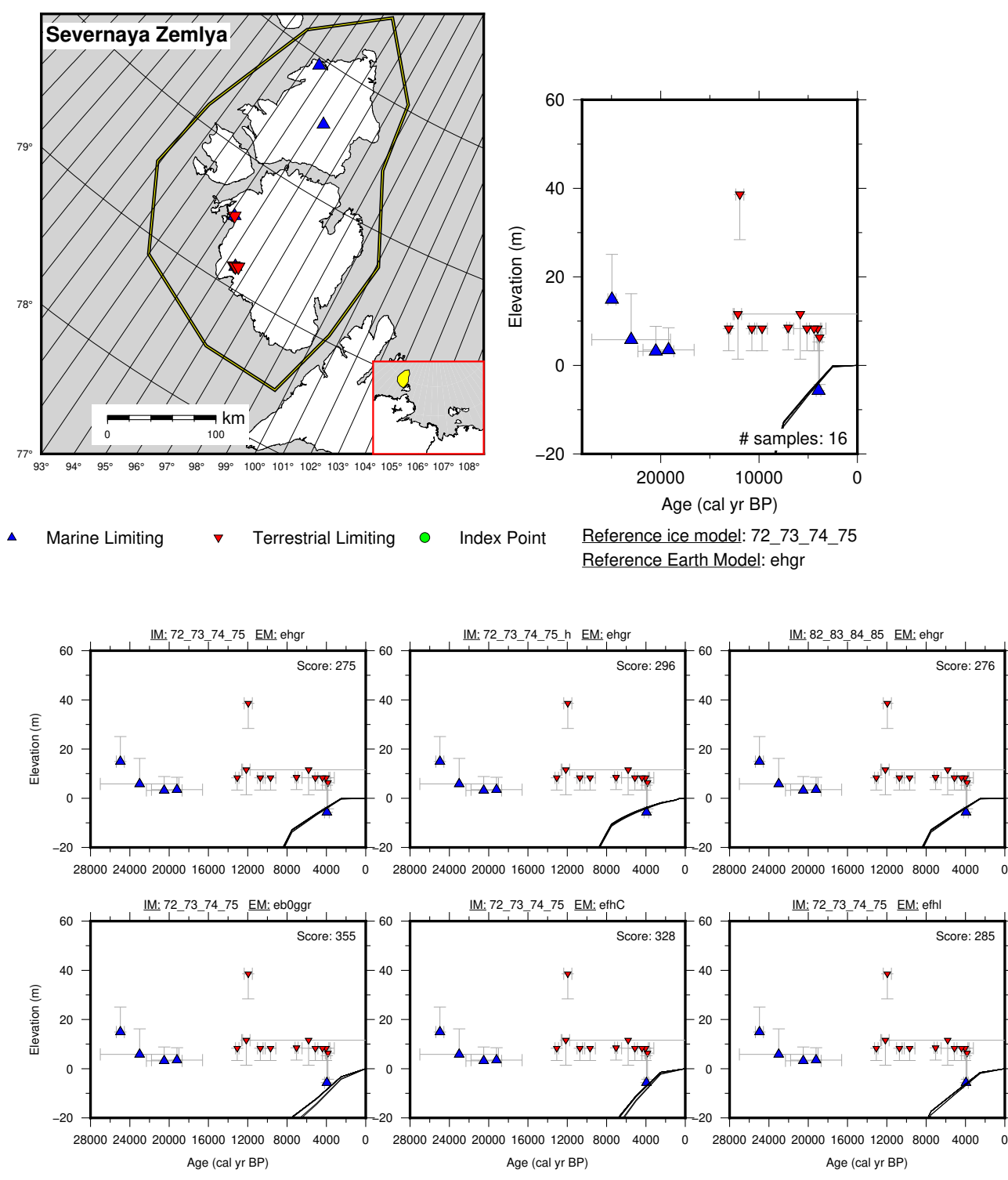


Figure 38: Paleo-sea level and comparison of six models for subregion Western Siberia, location Severnaya Zemlya.

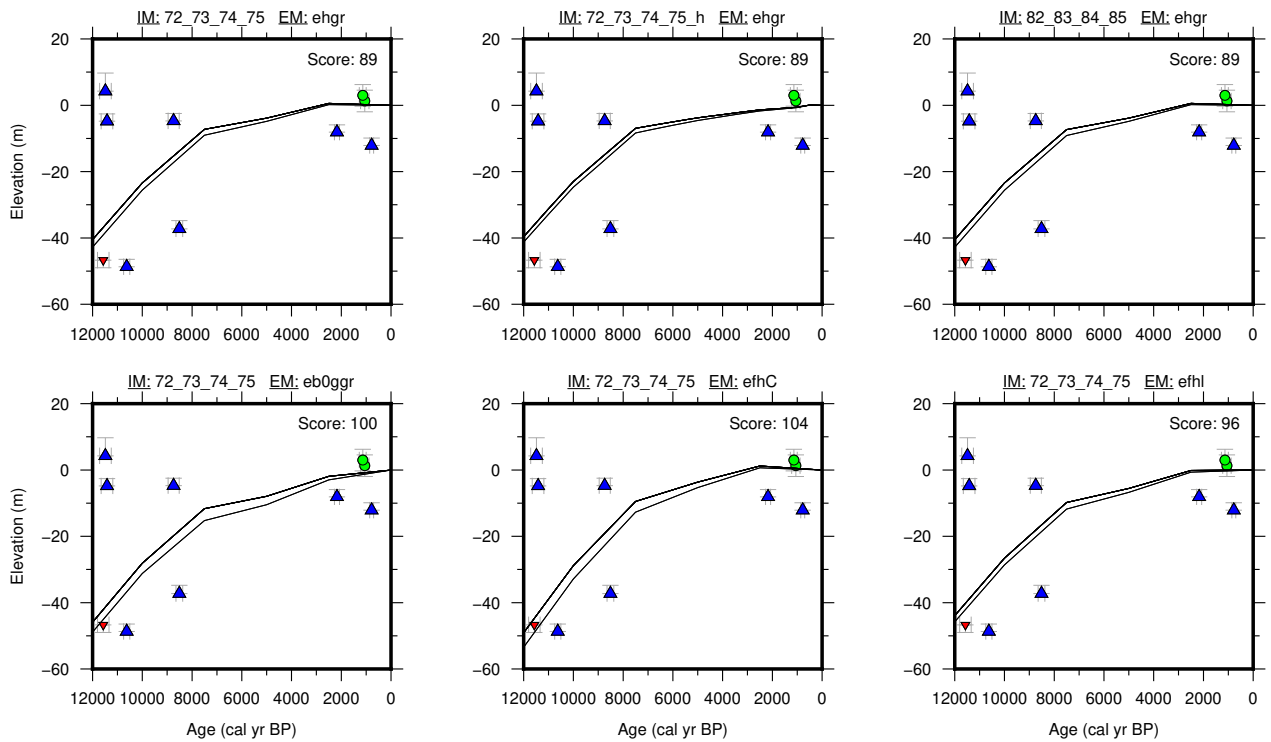
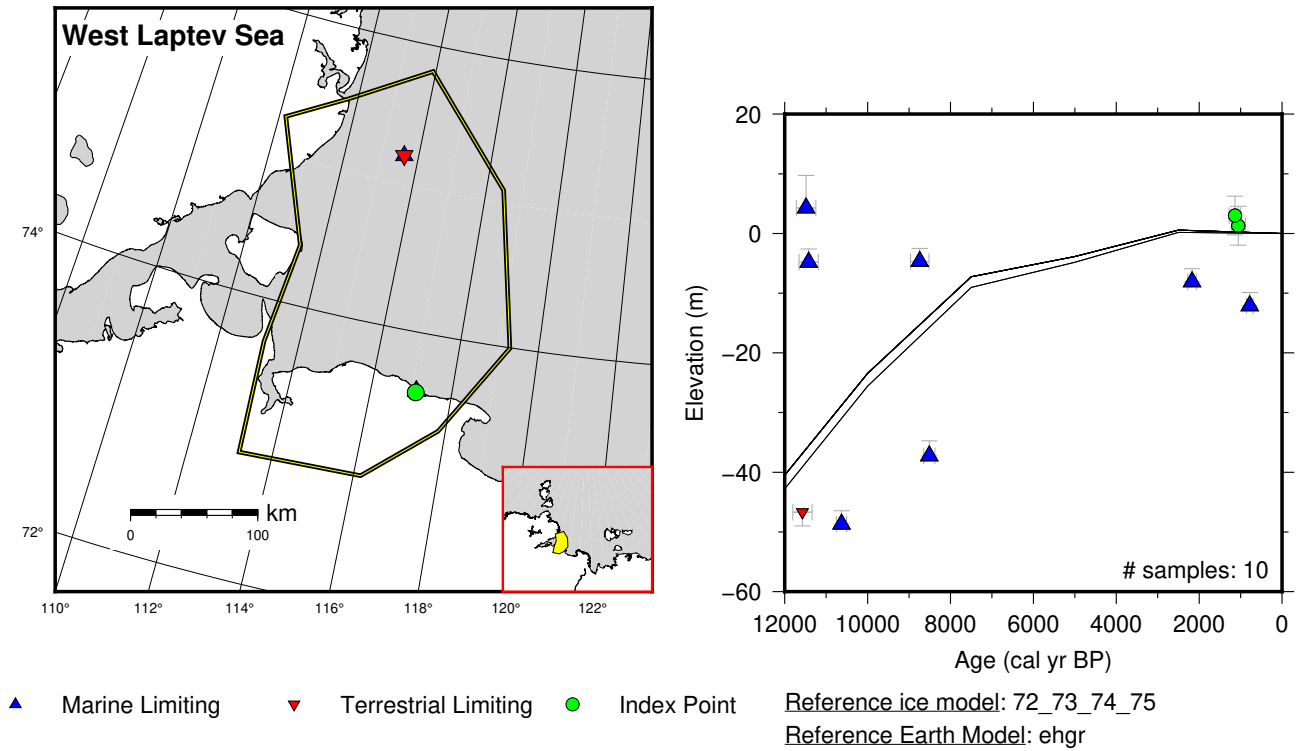


Figure 39: Paleo-sea level and comparison of six models for subregion Western Siberia, location West Laptev Sea.

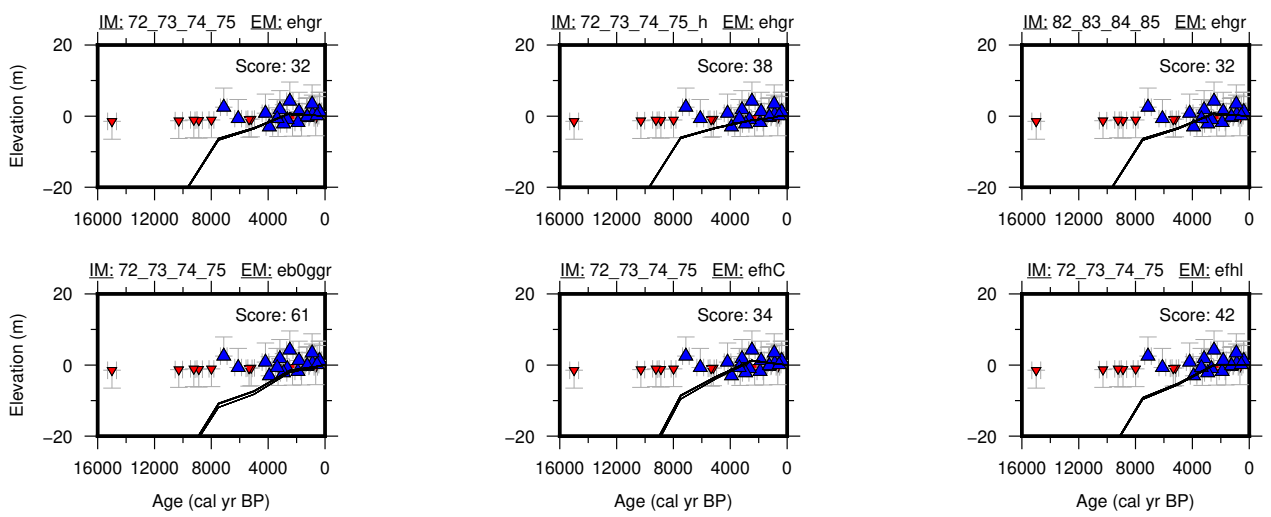
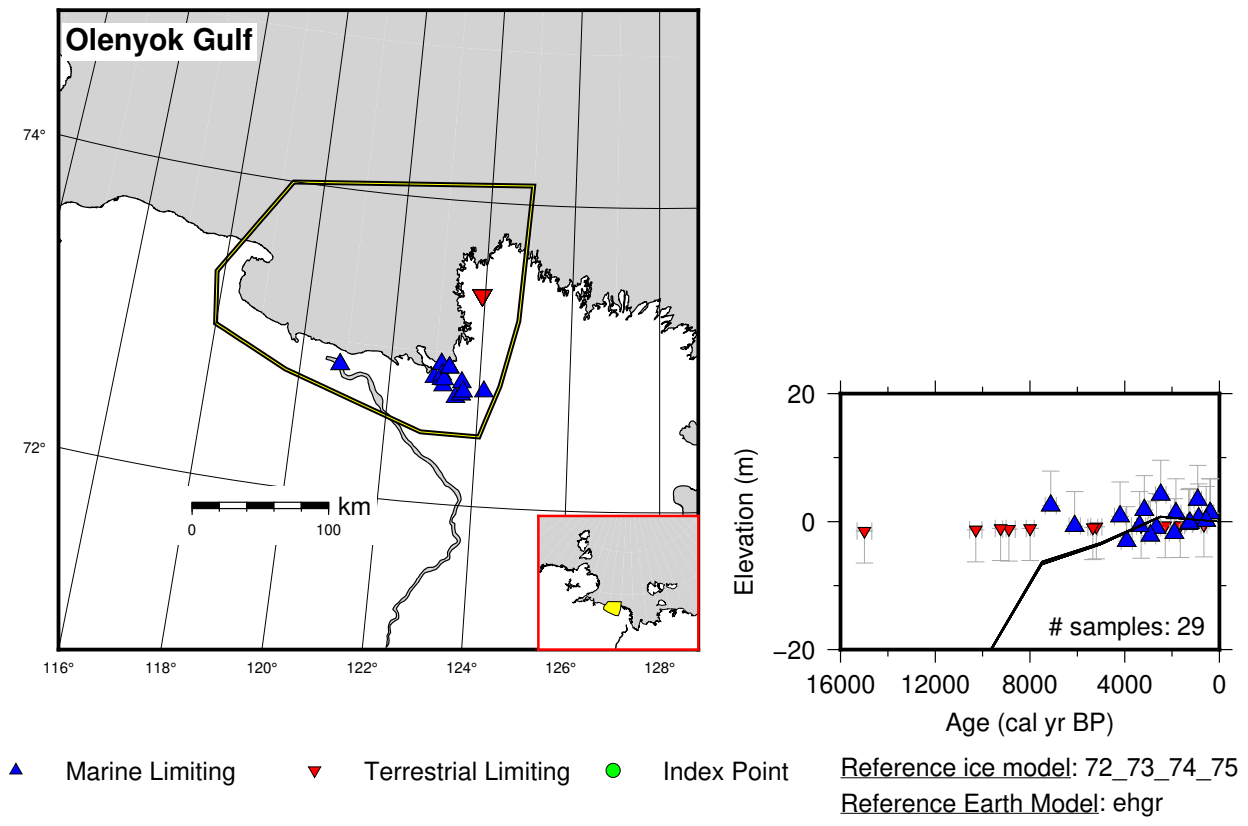


Figure 40: Paleo-sea level and comparison of six models for subregion Western Siberia, location Olenyok Gulf.

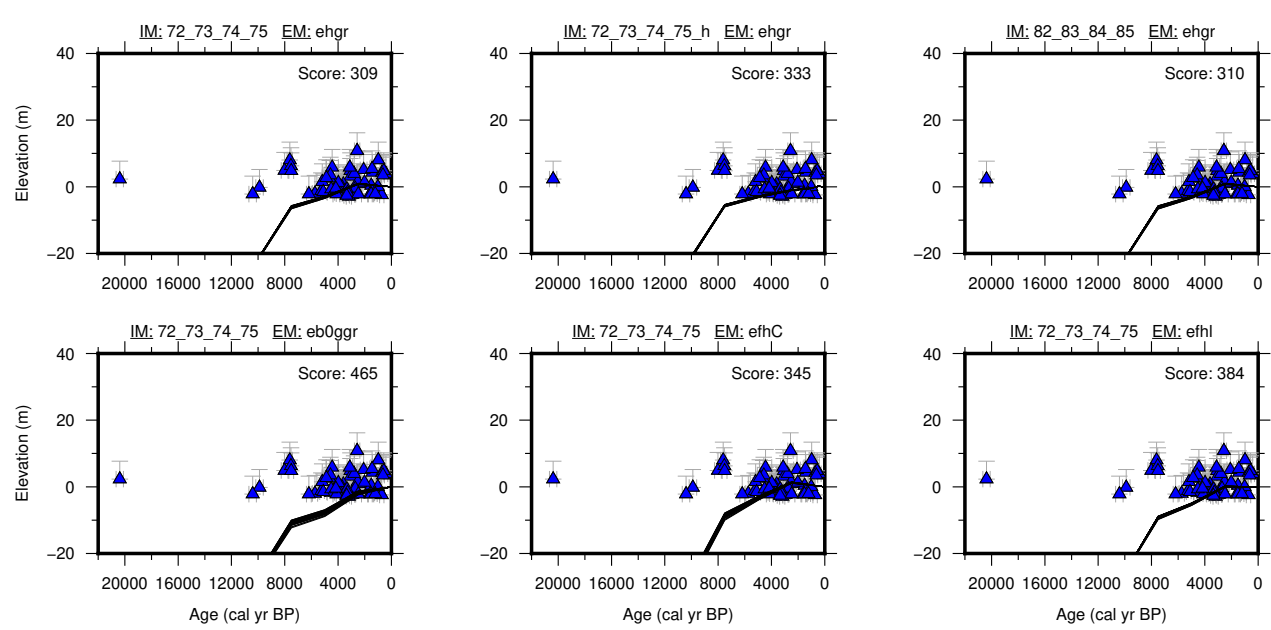
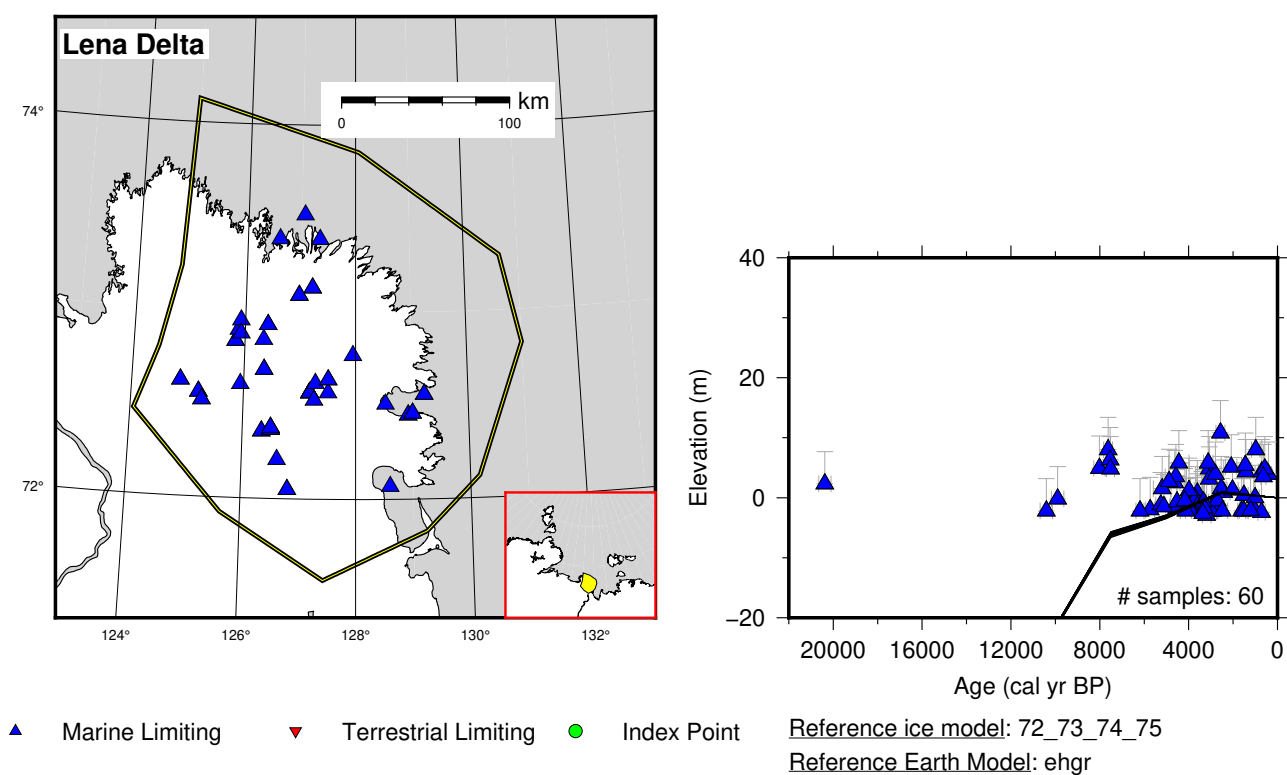
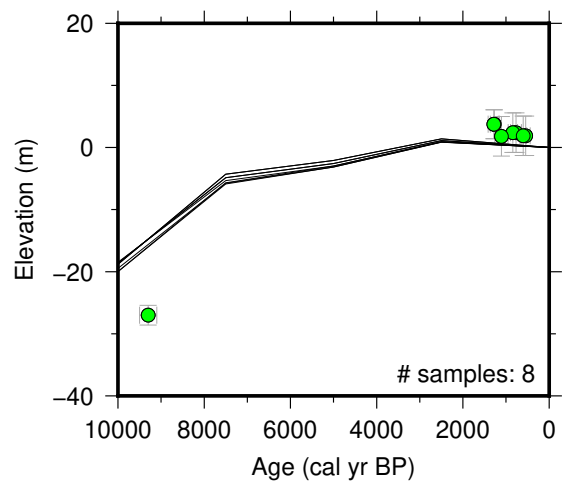
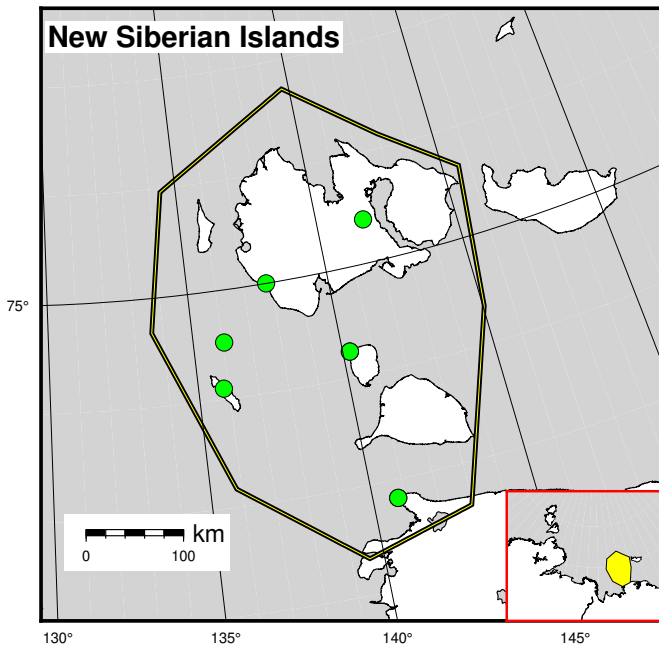


Figure 41: Paleo-sea level and comparison of six models for subregion Western Siberia, location Lena Delta.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point Reference ice model: 72_73_74_75
 Reference Earth Model: ehgr

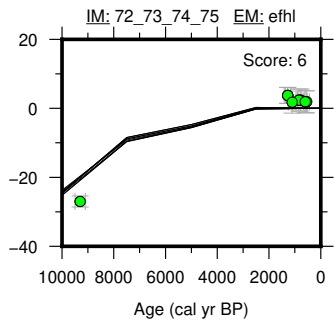
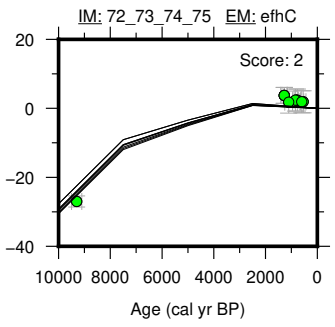
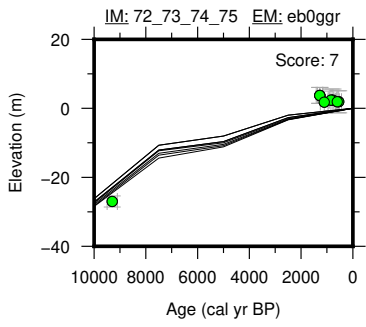
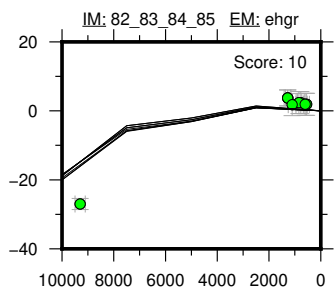
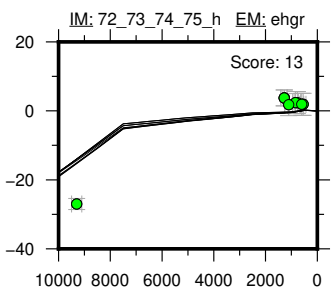
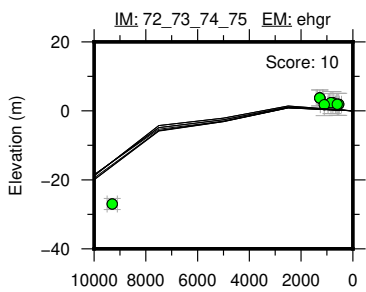
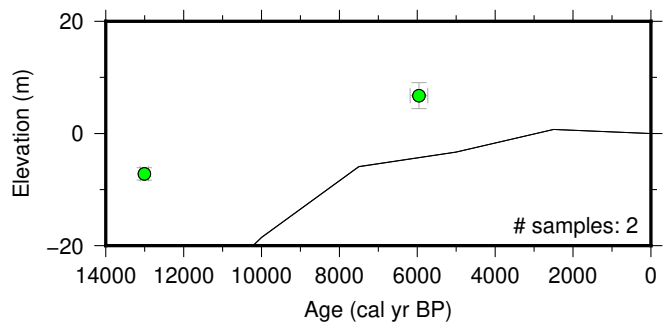
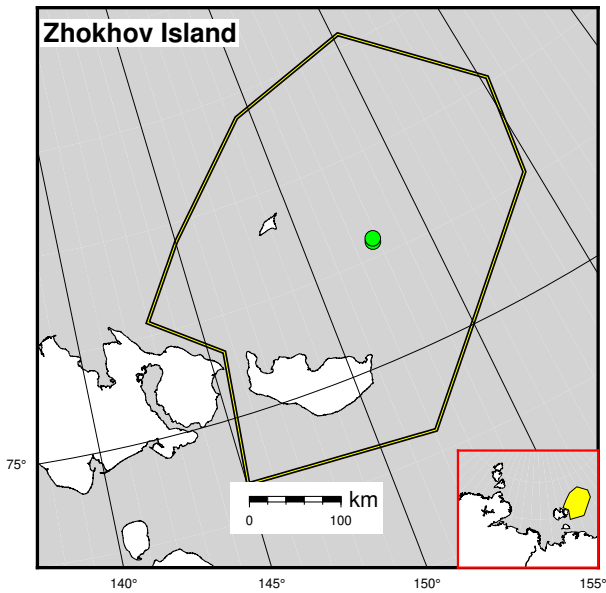


Figure 42: Paleo-sea level and comparison of six models for subregion Western Siberia, location New Siberian Islands.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point Reference ice model: 72_73_74_75
 Reference Earth Model: ehgr

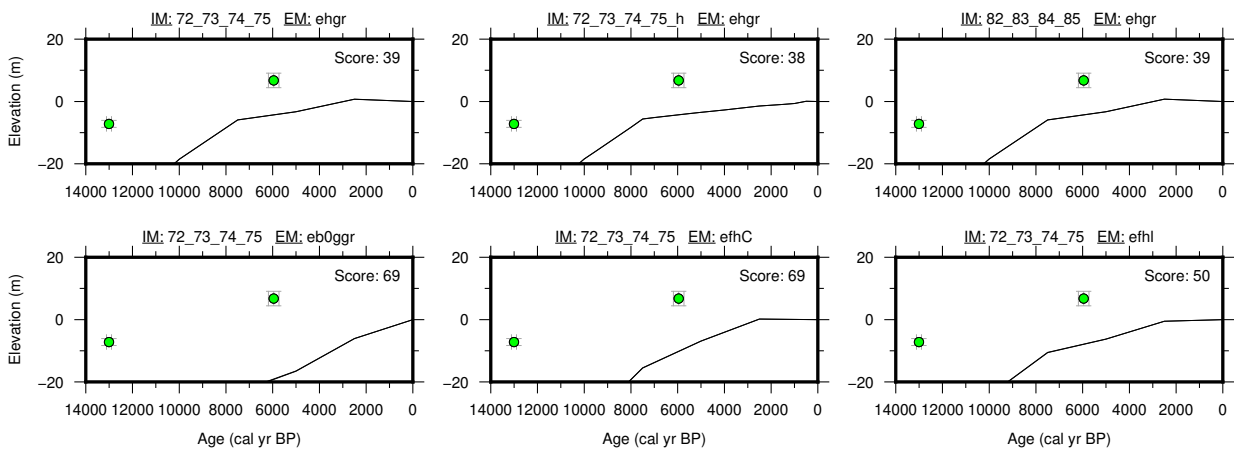


Figure 43: Paleo-sea level and comparison of six models for subregion Western Siberia, location Zhokhov Island.

8.6 White Sea

References for the data used in each location.

Kandalaksha: Arslanov et al. (1974); Kolka and Korsakova (2010); Koshechkin (1979)

Lesozavodskiy: Arslanov et al. (1974); Kolka et al. (2005); Koshechkin et al. (1973)

Rugozerskiy Peninsula: Baranskaya (2015); Repkina and Romanenko (2016); Romanenko and Shilova (2012); Zaretskaya et al. (2013)

Chupa Bay: Baranskaya and Romanenko (2015); Kolka et al. (2015)

Umba: Arslanov et al. (1974); Kolka et al. (2013a); Koshechkin (1979)

Engozero: Kolka et al. (2013b)

Belomorsk: Devyatova and Liyva (1971); Koshechkin (1979); Lunkka et al. (2012)

Eastern Kola Peninsula: Arslanov et al. (1974); Koshechkin (1979)

Onega Peninsula: Boyarskaya et al. (1986); Koshechkin et al. (1973); Repkina et al. (in review)

Dvina Gulf: Koshechkin (1979); Zaretskaya et al. (2011)

Kholmogorsky: Larsen et al. (2006)

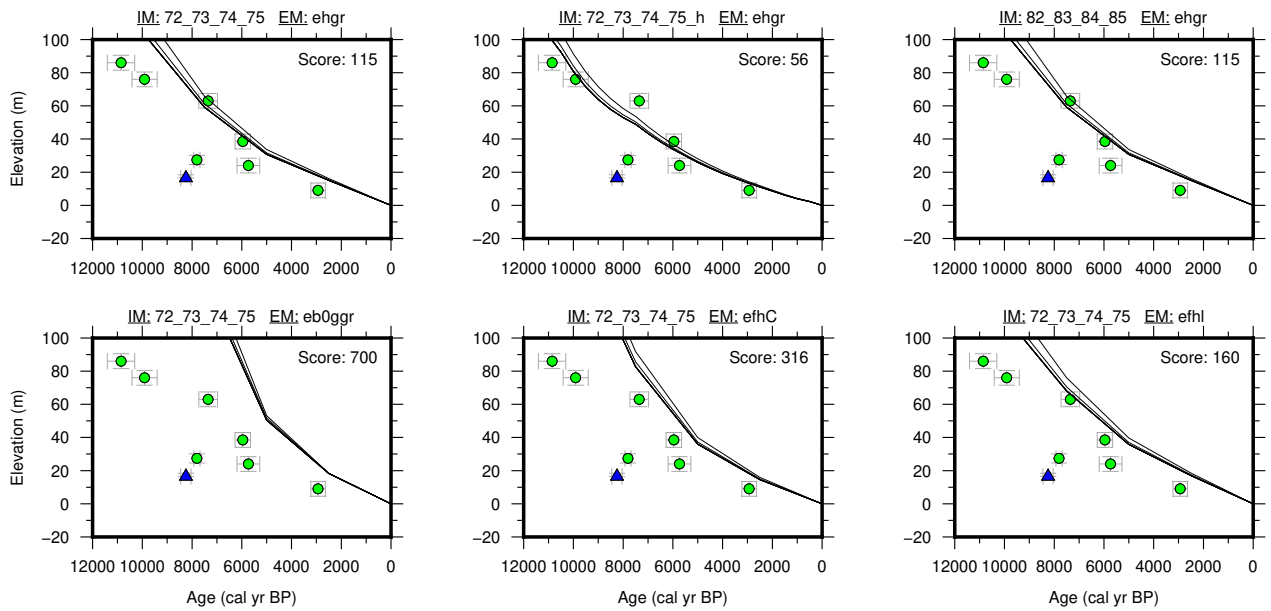
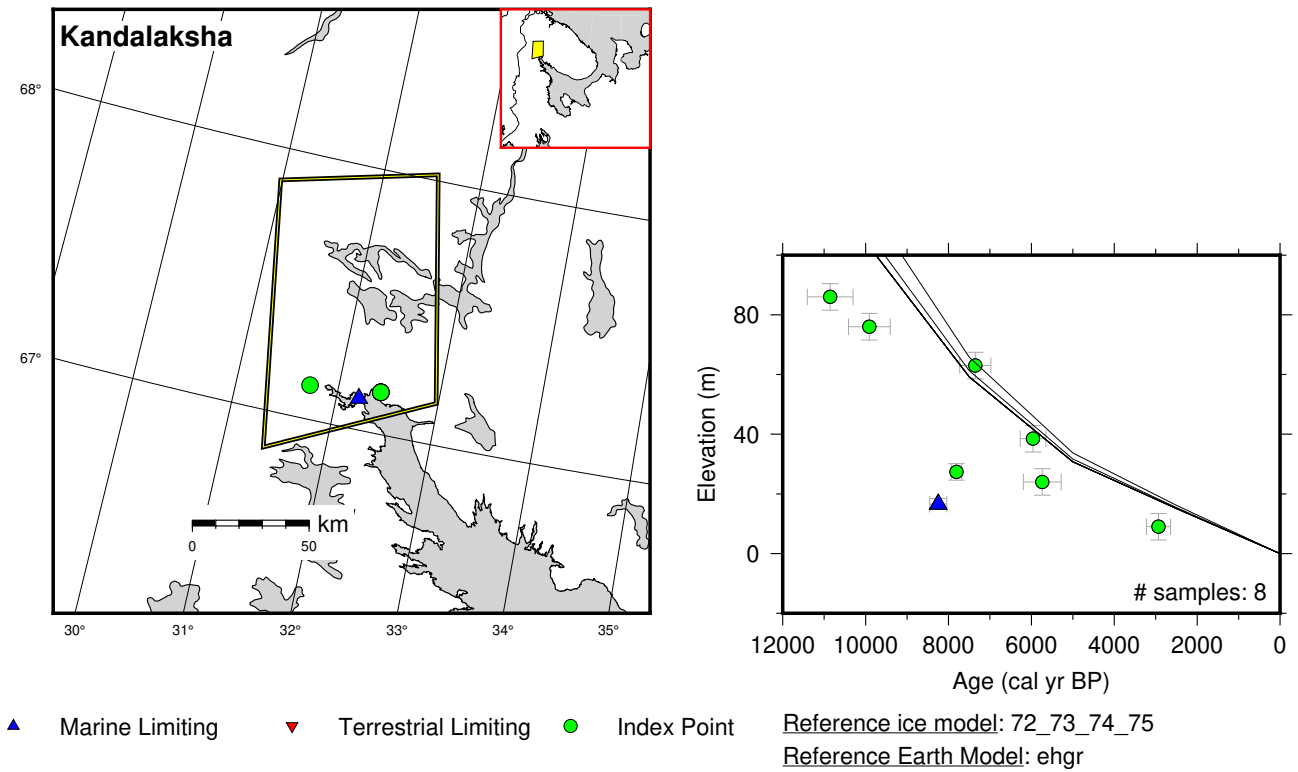
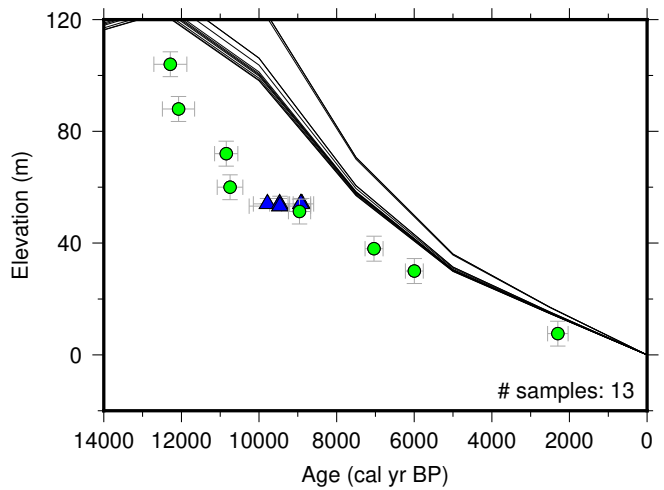
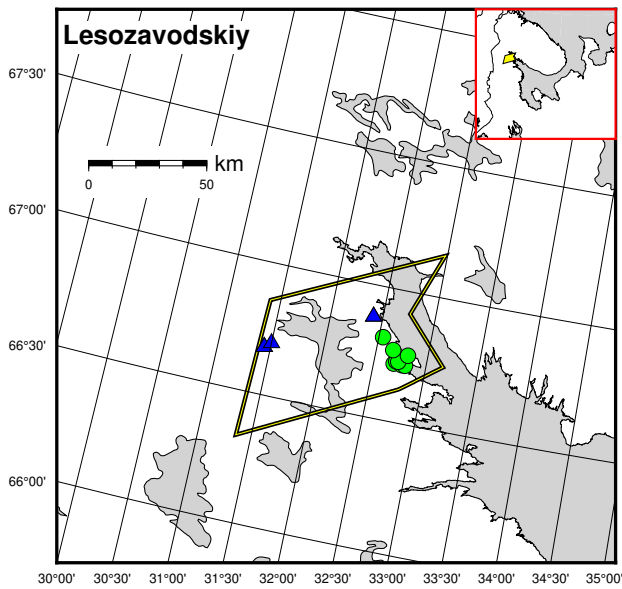


Figure 44: Paleo-sea level and comparison of six models for subregion White Sea, location Kandalaksha.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point Reference ice model: 72_73_74_75
 Reference Earth Model: ehgr

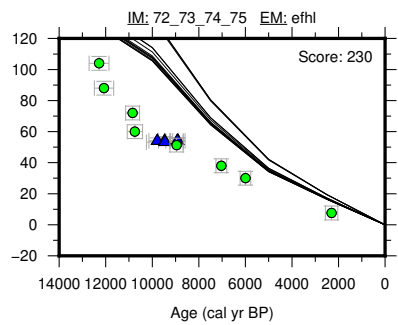
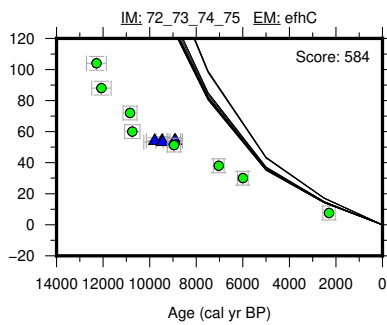
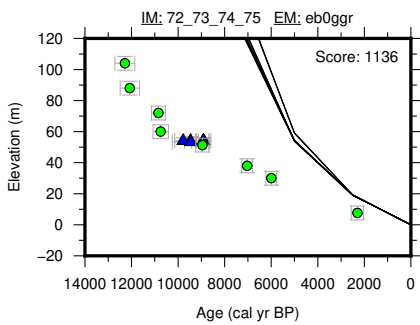
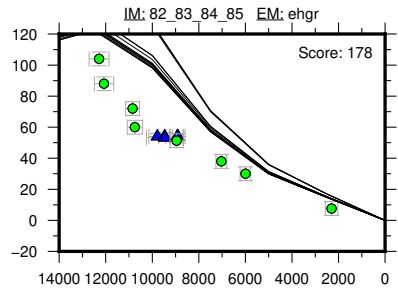
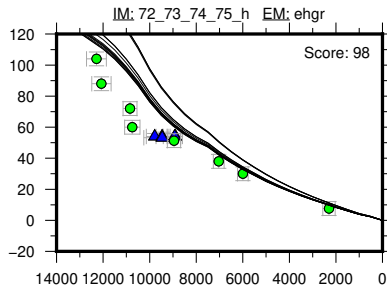
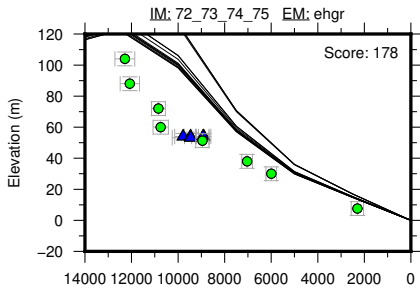
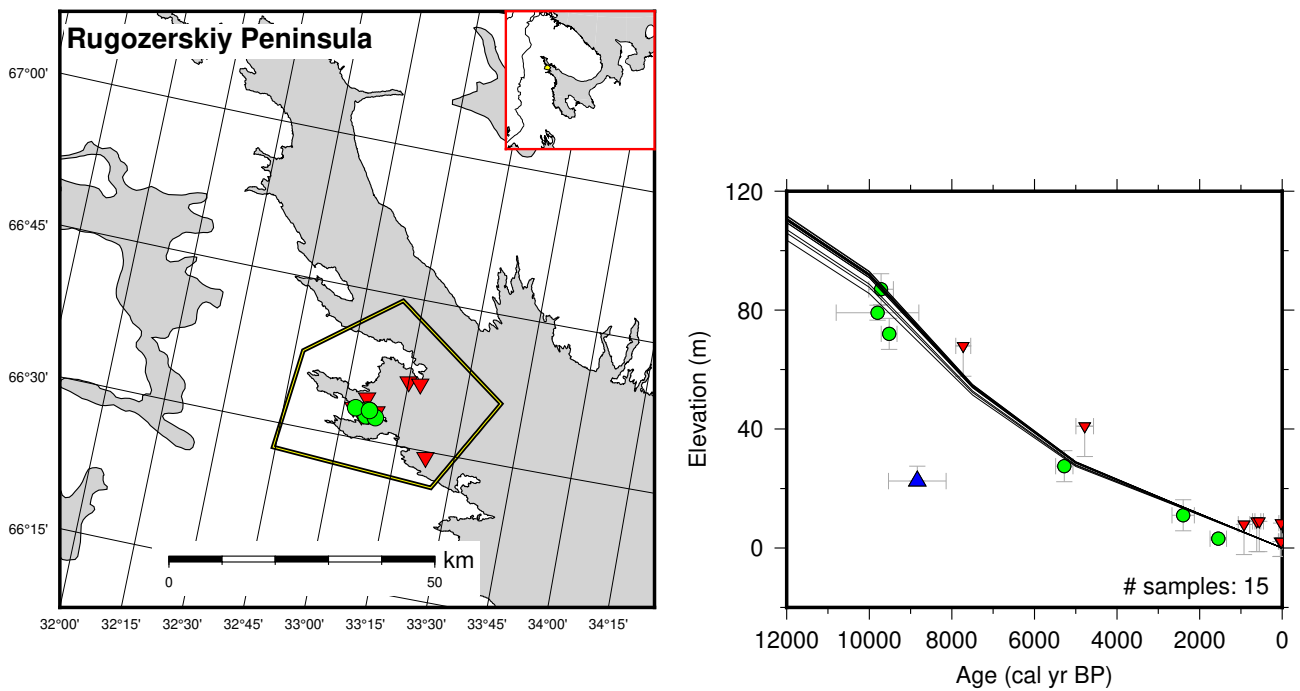


Figure 45: Paleo-sea level and comparison of six models for subregion White Sea, location Lesozavodskiy.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point Reference ice model: 72_73_74_75
 Reference Earth Model: ehgr

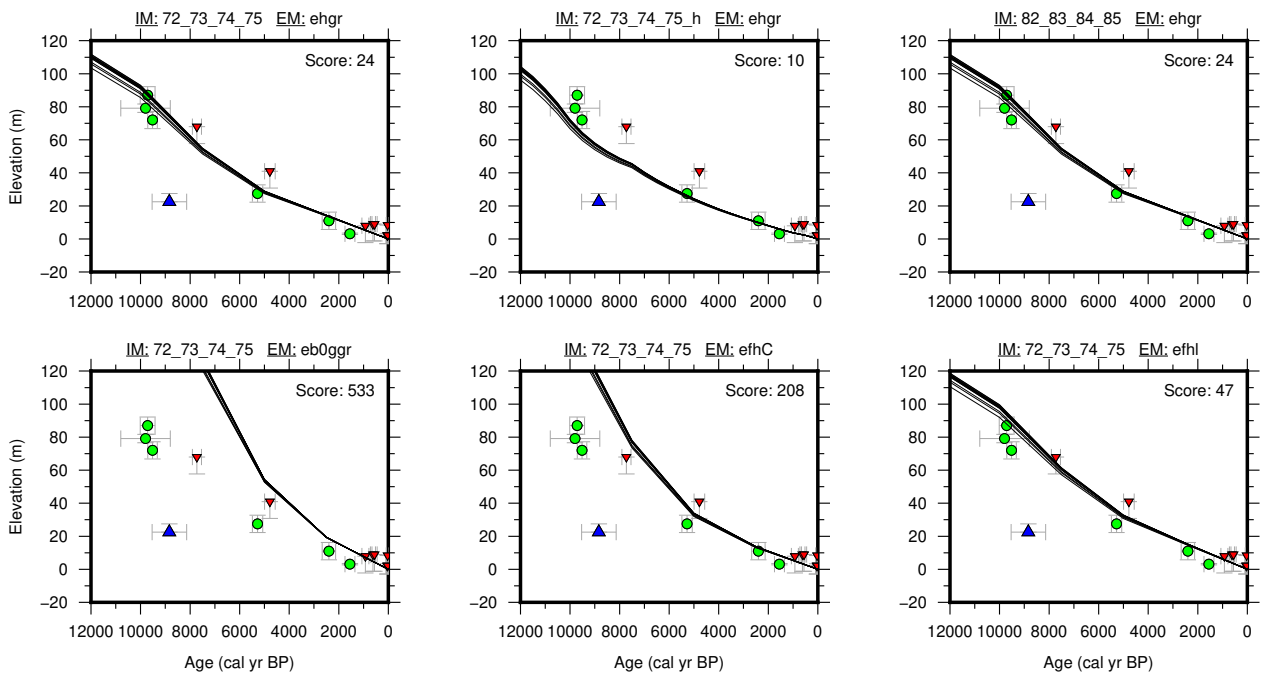
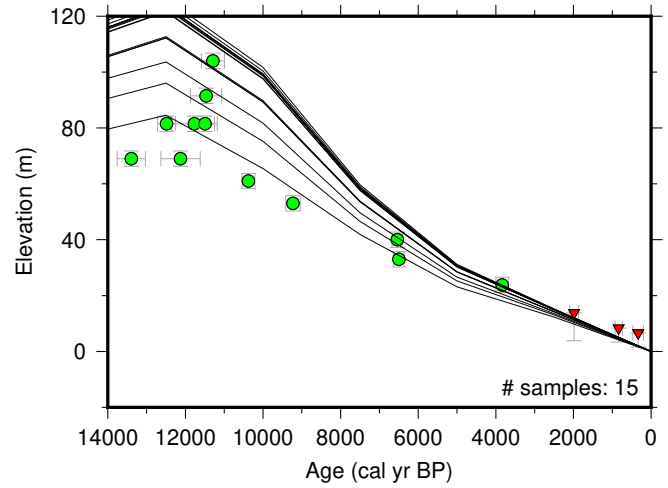
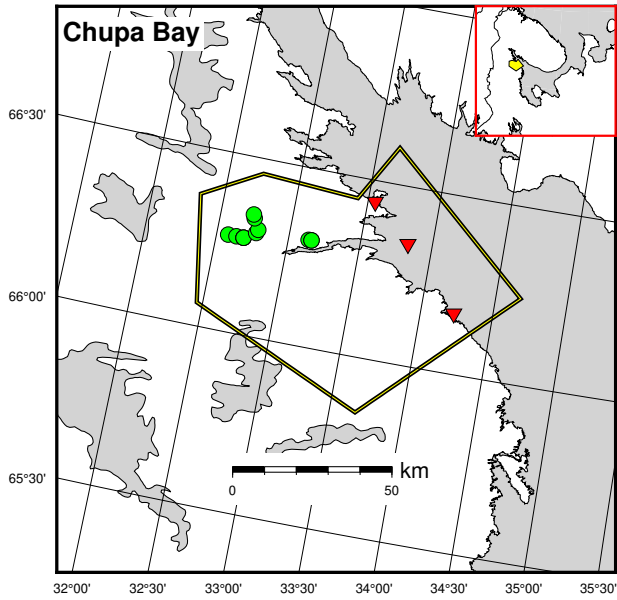


Figure 46: Paleo-sea level and comparison of six models for subregion White Sea, location Rugozerskiy Peninsula.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point Reference ice model: 72_73_74_75
 Reference Earth Model: ehgr

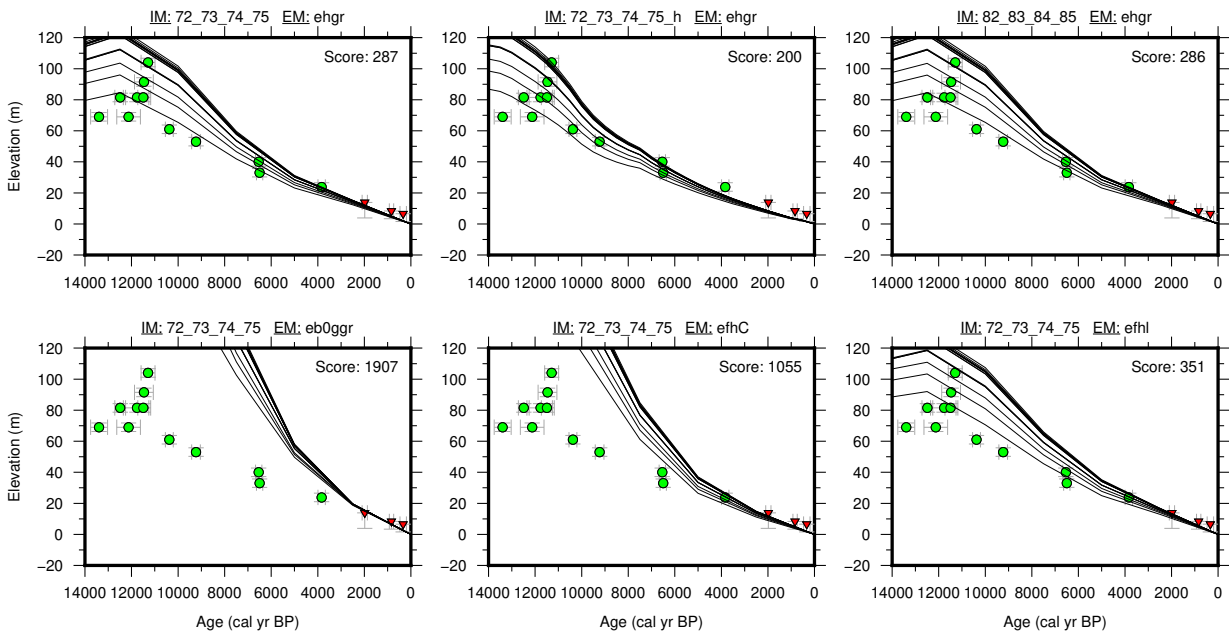
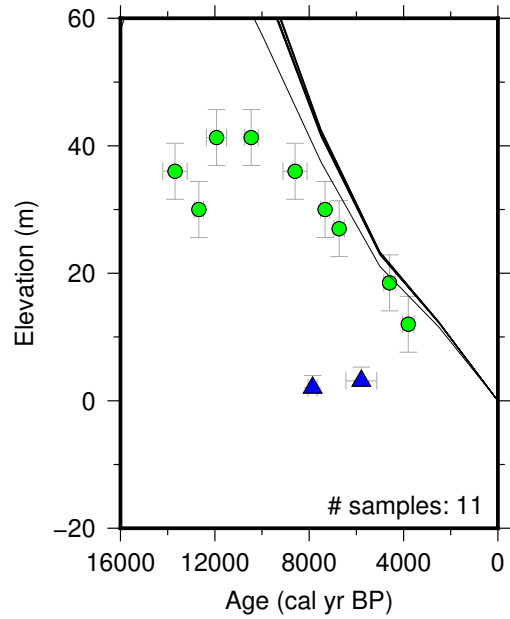
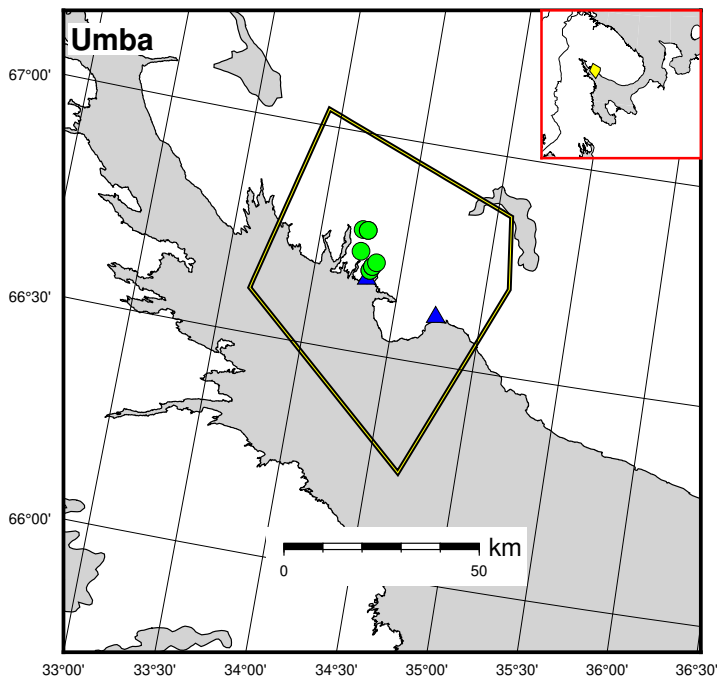


Figure 47: Paleo-sea level and comparison of six models for subregion White Sea, location Chupa Bay.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point

Reference ice model: 72_73_74_75
Reference Earth Model: ehgr

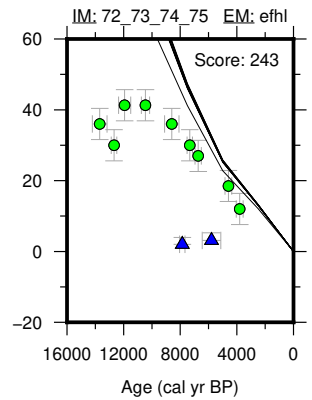
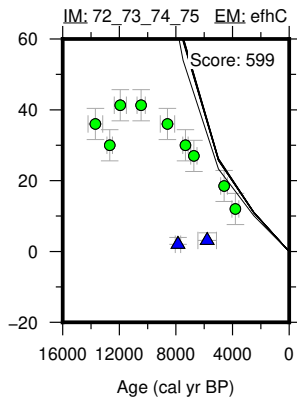
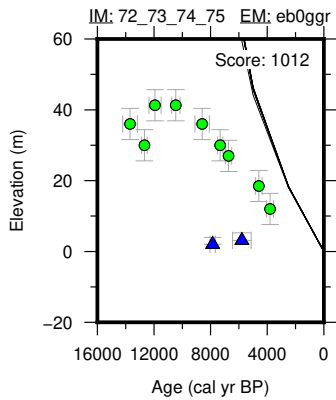
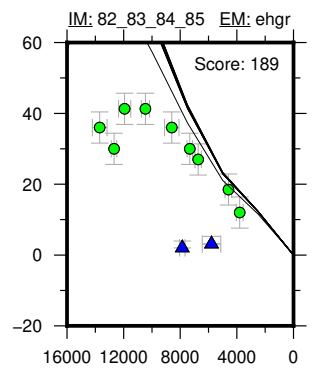
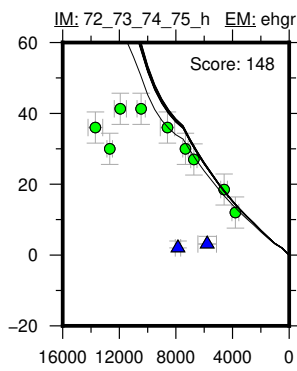
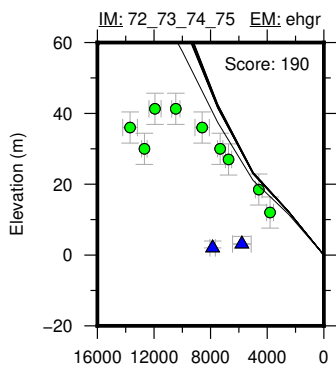


Figure 48: Paleo-sea level and comparison of six models for subregion White Sea, location Umba.

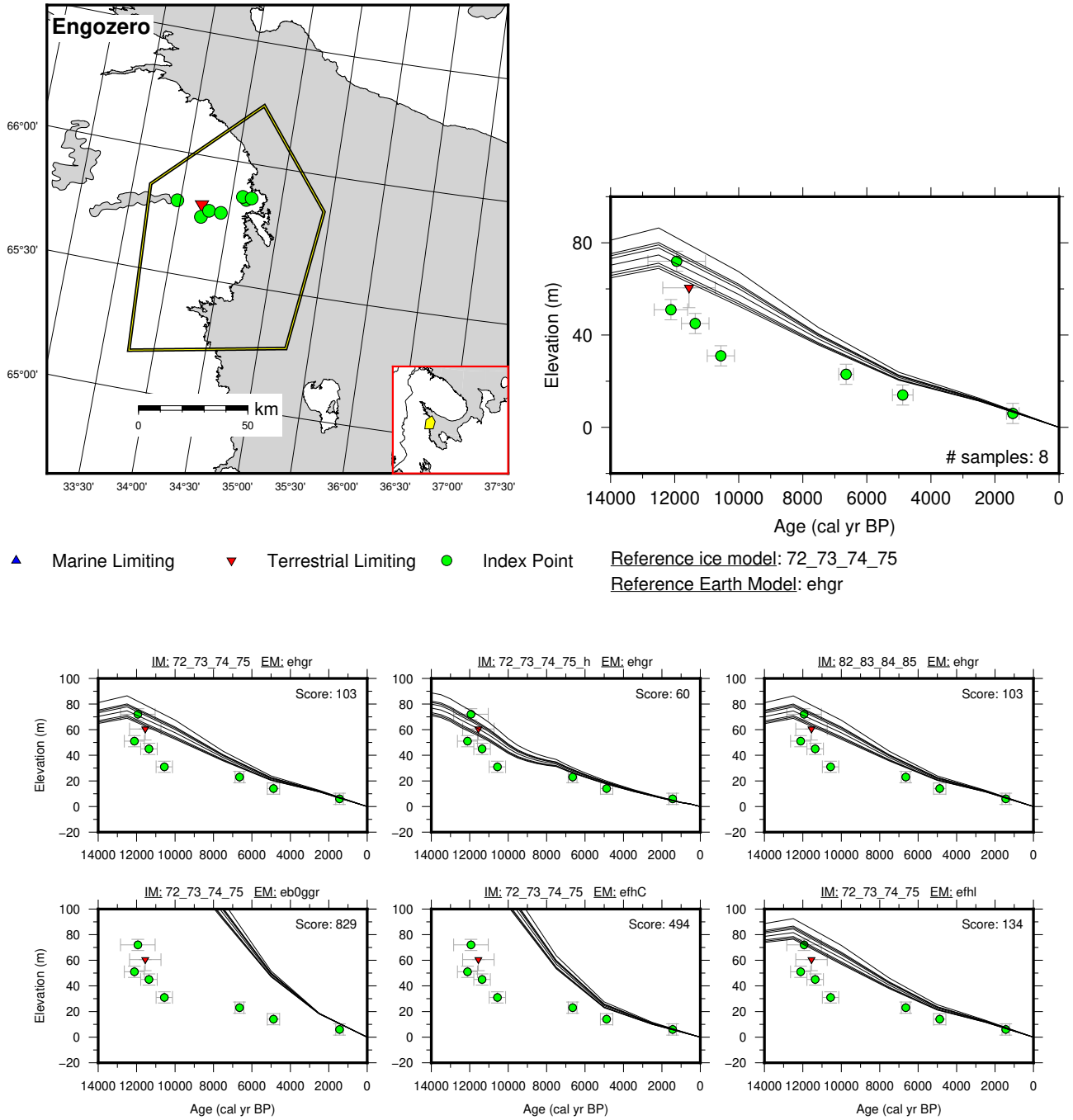


Figure 49: Paleo-sea level and comparison of six models for subregion White Sea, location Engozero.

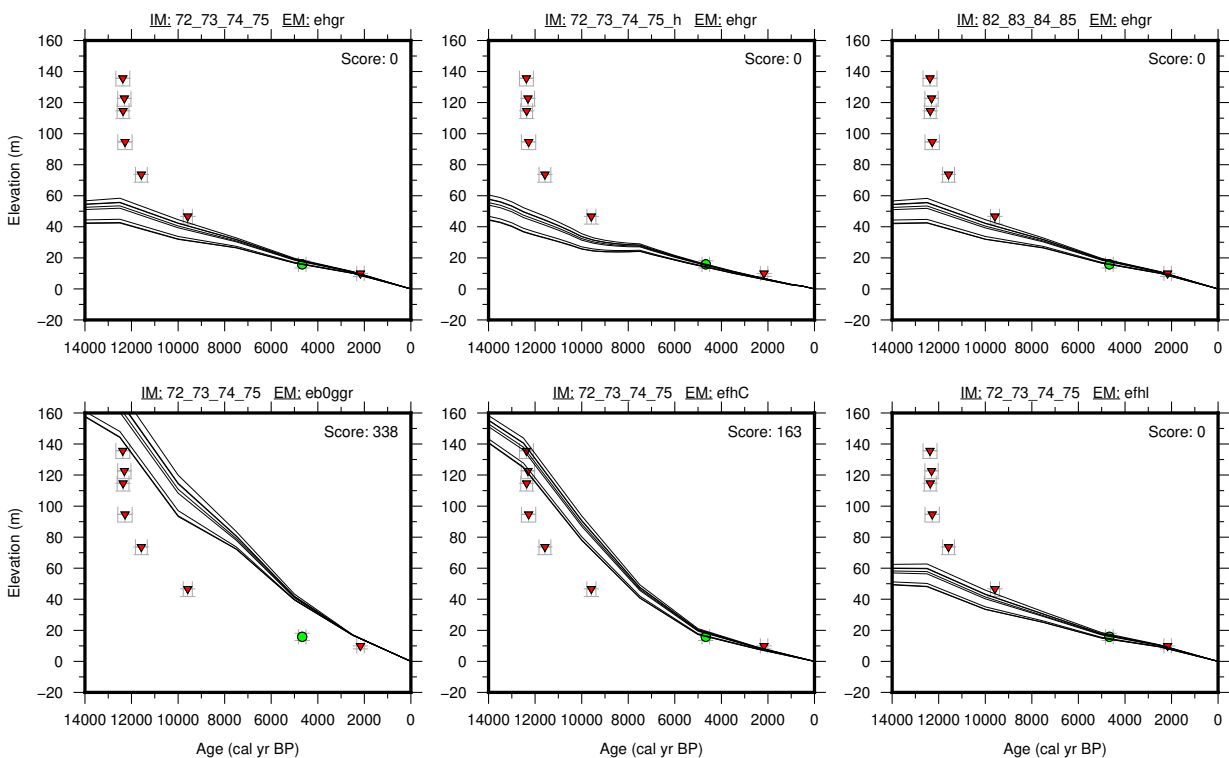
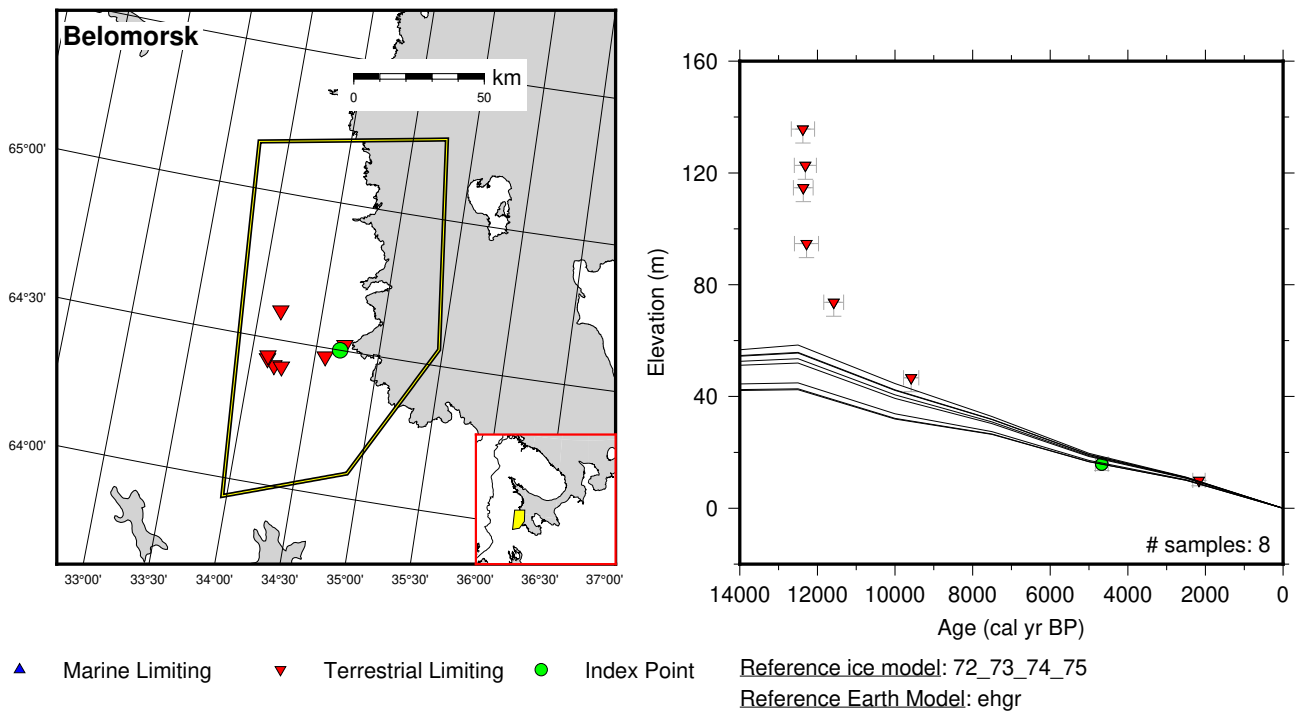
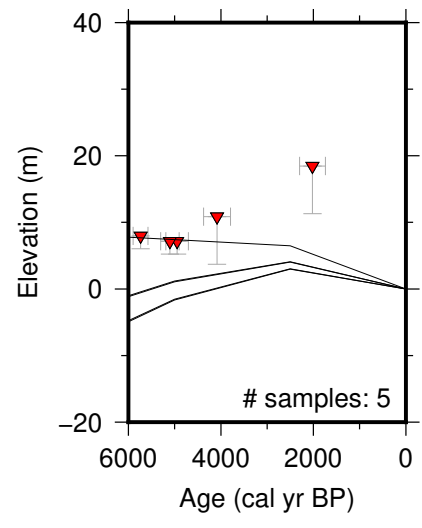
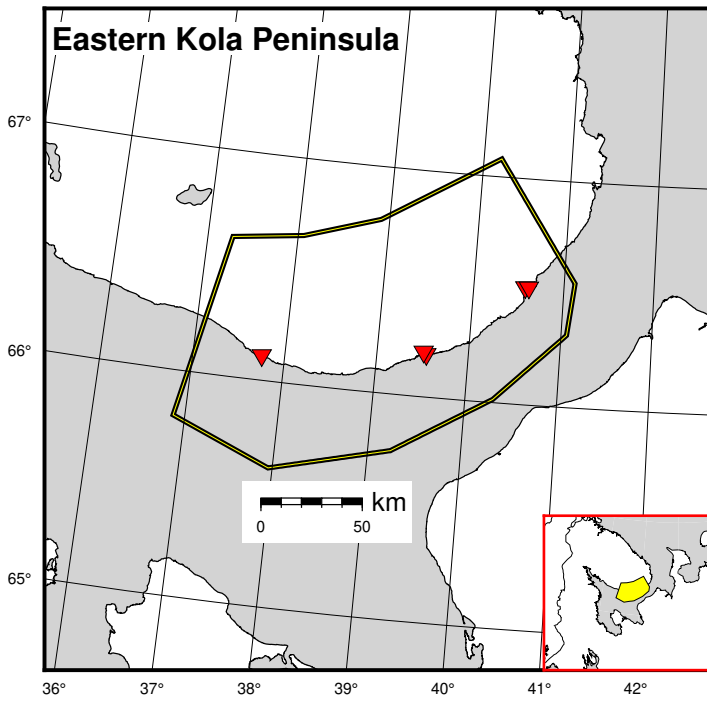


Figure 50: Paleo-sea level and comparison of six models for subregion White Sea, location Belomorsk.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point

Reference ice model: 72_73_74_75
Reference Earth Model: ehgr

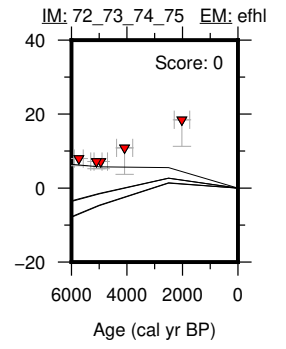
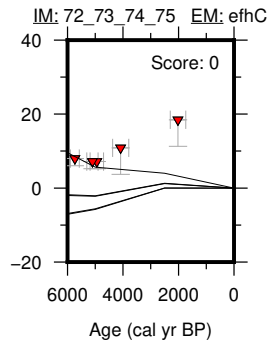
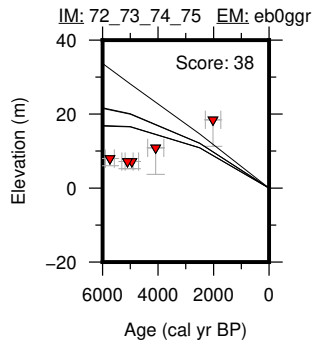
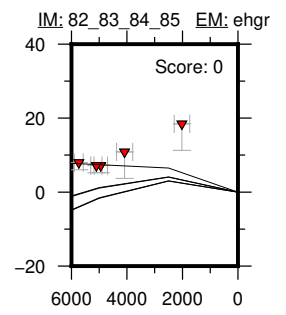
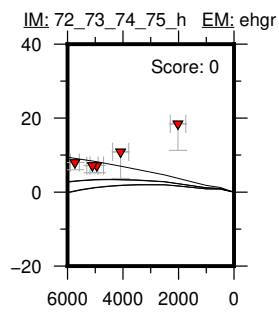
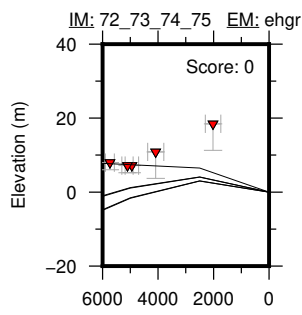


Figure 51: Paleo-sea level and comparison of six models for subregion White Sea, location Eastern Kola Peninsula.

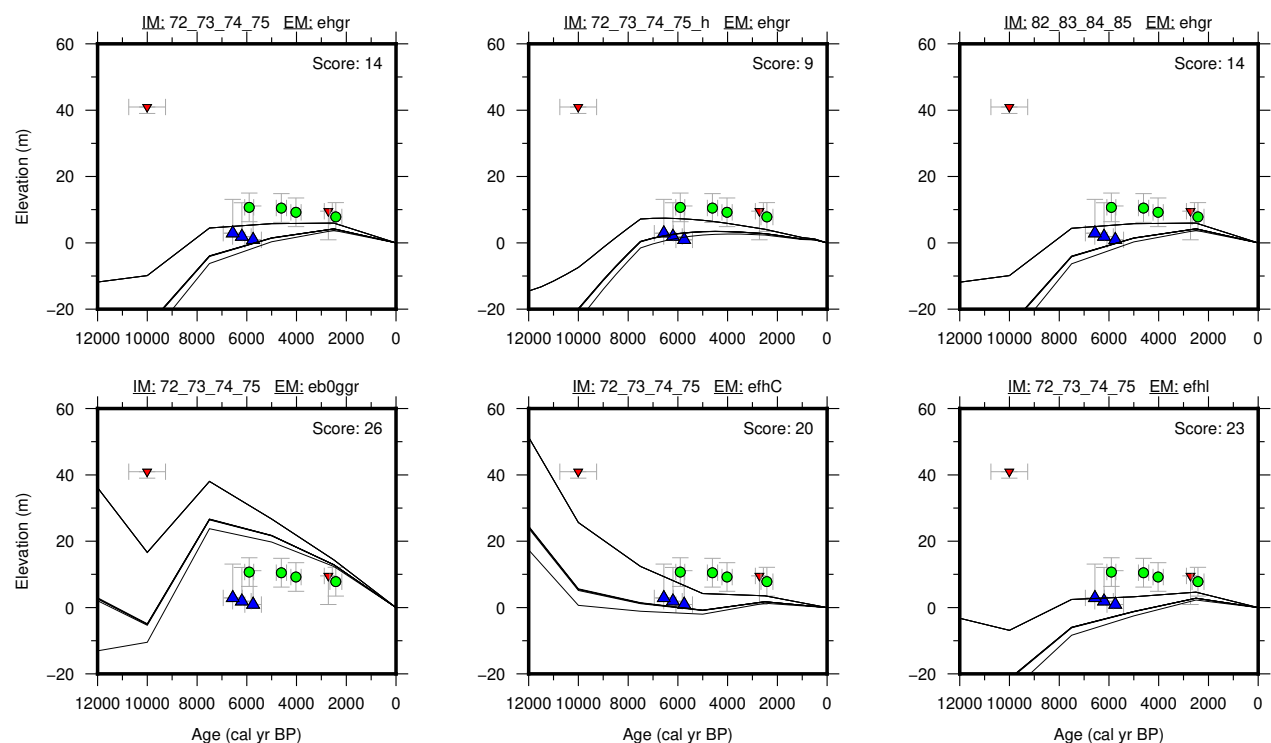
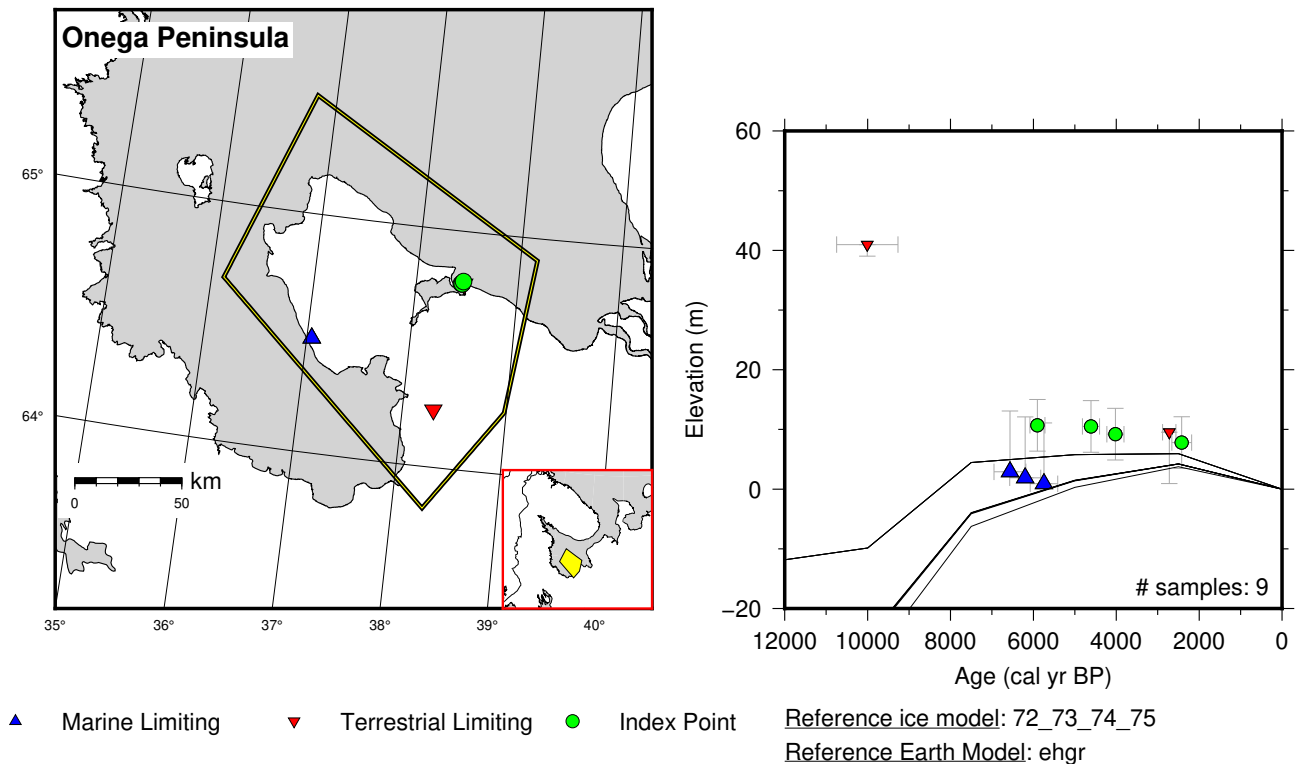
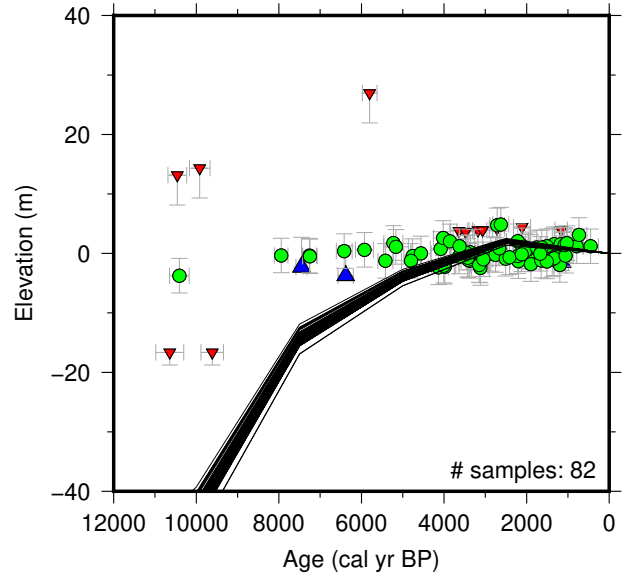
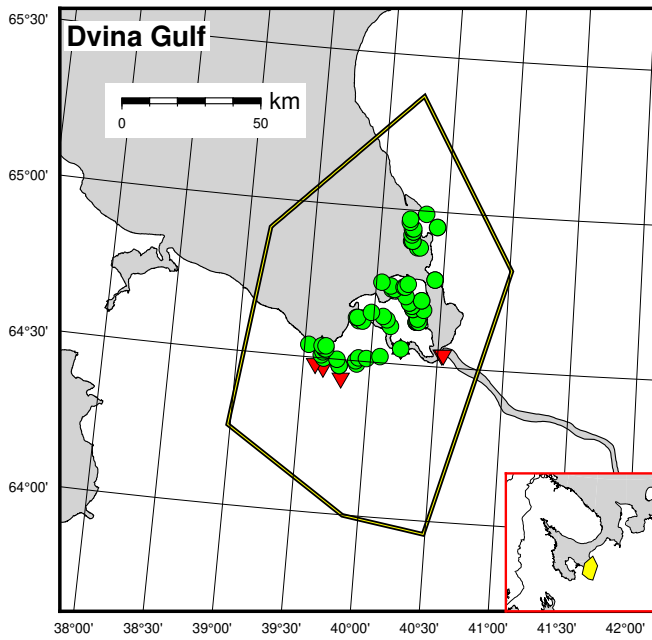


Figure 52: Paleo-sea level and comparison of six models for subregion White Sea, location Onega Peninsula.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point Reference ice model: 72_73_74_75
 Reference Earth Model: ehgr

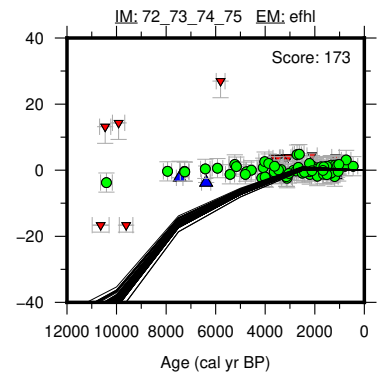
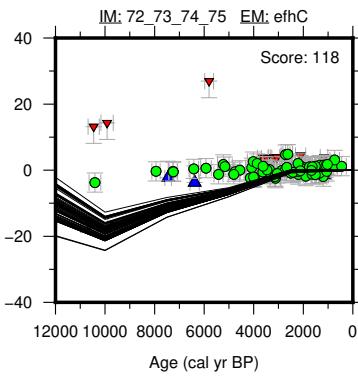
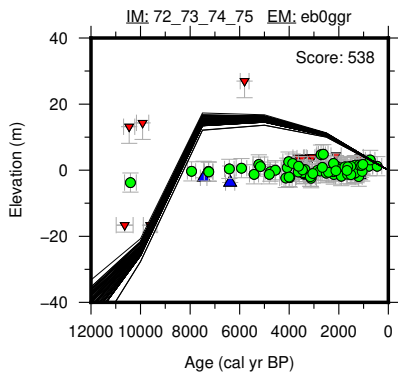
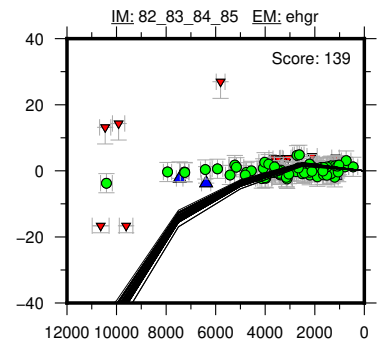
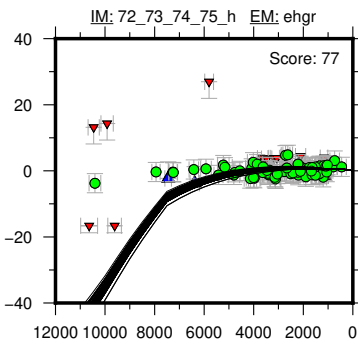
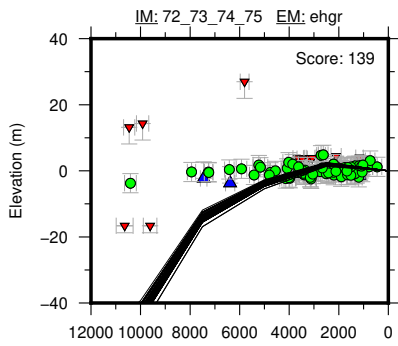


Figure 53: Paleo-sea level and comparison of six models for subregion White Sea, location Dvina Gulf.

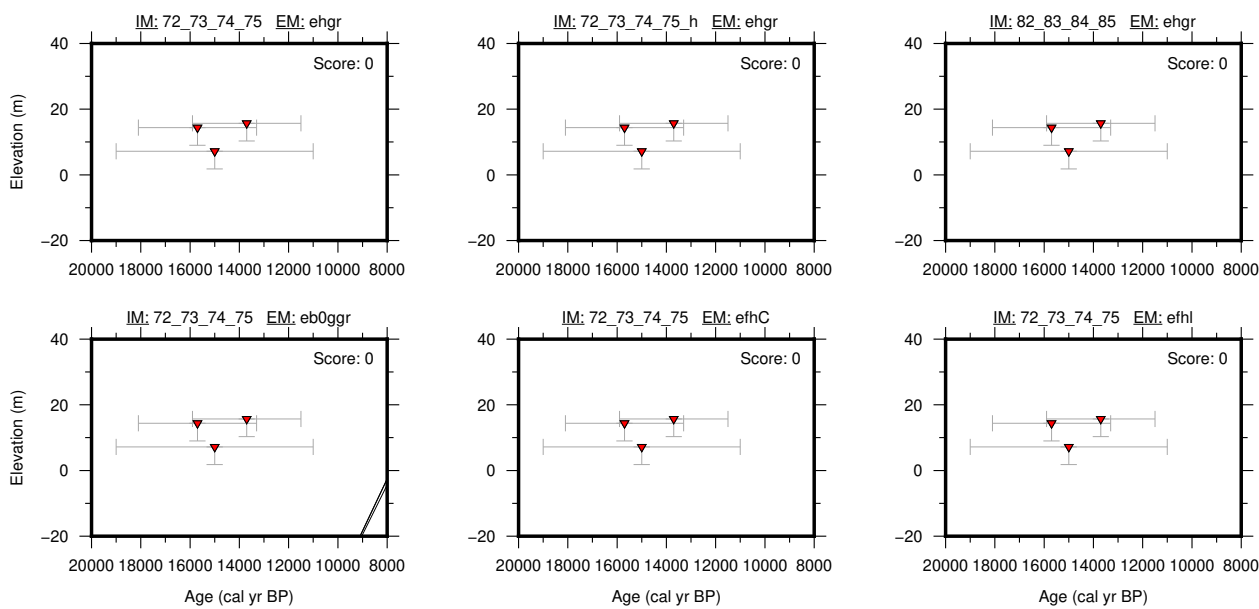
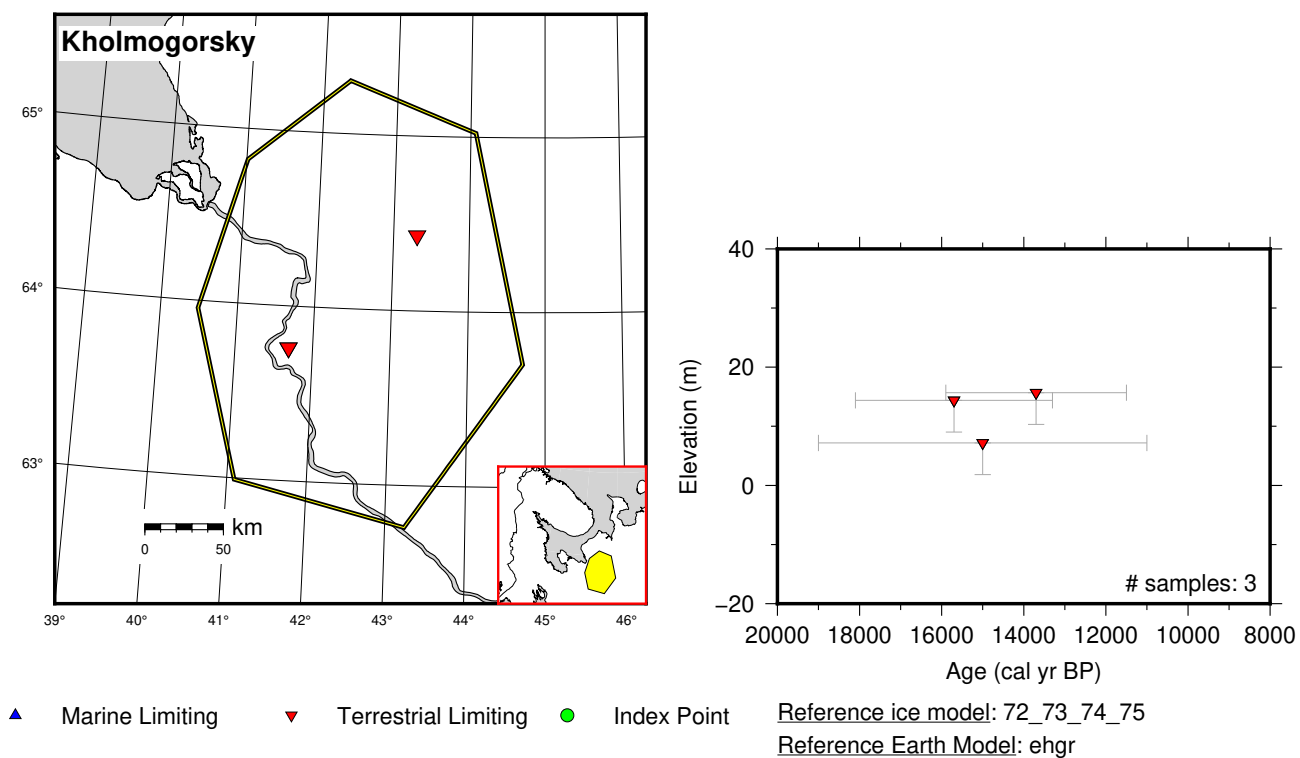


Figure 54: Paleo-sea level and comparison of six models for subregion White Sea, location Kholmogorsky.

9 Europe

9.1 Baltic Sea

References for the data used in each location.

Achterwasser: Hoffmann et al. (2009); Lampe and Janke (2004)

Baltic Southwest: Bennike and Jensen (1998); Nielsen et al. (2004)

Rugen: Hoffmann et al. (2009); Lampe et al. (2010); Naumann and Lampe (2011)

Salt Meadows: Lampe and Janke (2004); Lampe et al. (2010); Naumann and Lampe (2011)

Arkona Basin East: Bennike and Jensen (1998)

Arkona Basin West: Bennike and Jensen (1998); Jensen et al. (1997)

Fakse Bugt: Jensen and Stecher (1992)

Lubeck: Bennike and Jensen (1998); Harders et al. (2005); Heinrich et al. (2018); Jensen et al. (1997); Lampe et al. (2010); Winn et al. (1986)

Kieler Bucht: Bennike and Jensen (1998); Ernst (1974); Feldens and Schwarzer (2012); Winn et al. (1986)

Storebaelt: Bennike et al. (2004); Christensen et al. (1997); Hede (2003); Krog (1979); Petersen (1978); Winn et al. (1986)

Lillebaelt: Andersen (2013); Bennike and Jensen (2011); Krog (1979); Petersen and Rasmussen (1995); Skaarup and Grøn (2004); Tauber (1966)

Samsø Belt: Fischer (2005); Hede et al. (2015); Jensen and Bennike (2009); Petersen (1993); Petersen and Rasmussen (1995); Rahbek and Rasmussen (1994); Rasmussen (1995); Sander et al. (2015)

Kattegat: Bendixen et al. (2017); Bennike et al. (2000); Christiansen et al. (1993); Jensen et al. (2002)

Treøa Moellebugt: Petersen and Rasmussen (1995)

Vendsyssel Thy: Aaris-Sørensen and Petersen (1984); Christensen and Nielsen (2008); Knudsen (1978); Krog and Tauber (1974); Petersen (1991); Petersen and Rasmussen (1995); Richardt (1996)

Laesøe: Hansen (1977); Petersen and Rasmussen (1995)

Bohuslan: Persson (1973)

Goteborg: Mörner (1969)

Halmstad: Mörner (1969)

Asa: Mörner (1969)

Sund: Bennike et al. (2012, 2017); Christensen (1982, 2014); Fischer (1993); Rasmussen (1992)

Havang: Berglund (1971); Hansson (2018); Hansson et al. (2018a,b)

Blekinge: Berglund (1964, 1971); Hansson (2018); Hansson et al. (2019); Liljegren (1970); Nylander (1969); Yu et al. (2003, 2005, 2007)

Ustka: Miotk-Szpiganowicz et al. (2009)

West Gulf Of Gdansk: Uścińowicz et al. (2011); Uścińowicz et al. (2013)

South Vistula: Miotk-Szpiganowicz (2016); Miotk-Szpiganowicz and Uścińowicz (2013)

Curonian Spit: Sergeev et al. (2015)

Lithuania: Bitinas et al. (2000, 2001, 2002, 2003, 2017); Damušytė (2011); Gelumauskaitė (2009); Girininkas and Žulkus (2017); Trimonis et al. (2007); Žulkus and Girininkas (2012)

Ventspils: Bērziņš et al. (2016); Murniece et al. (1999); Veinbergs (1996)

West Gulf Of Riga: Eberhards (2006); Grudzinska (2011); Pujāte (2015); Punning et al. (1973); Veinbergs (1996)

Riga: Eberhards (2008); Grudzinska (2015); Grudzinska et al. (2017)

Parnu: H. (1975); Habicht et al. (2017); Haila and Raukas (1992); Hyvärinen et al. (1992); Ilves et al. (1974); Jaanits and Jaanits (1978); Kessel and Punning (1969a,b, 1974); Kriiska (2001); Kriiska and Lõugas (2009); Kriiska et al. (2002); Nirgi et al. (2020); Orru et al. (1992); Poska and Veski (1999); Punning et al. (1971, 1977); Raukas et al. (1995, 1999); Rosentau et al. (2011); Saarse et al. (2003); Veski (1998); Veski et al. (2005)

South Saaremaa: Reintam et al. (2008); Saarse et al. (2009)

Hiiumaa: Königsson et al. (1998); Kriiska (2002); Kriiska and Lõugas (1999); Kriiska et al. (2005); Liiva et al. (1966); Rosentau et al. (2020); Sarv (1981); Vassiljev et al. (2015)

Ostergotland: Persson (1979)

Sodermanland: Robertsson (1991)

Paldiski: Grudzinska et al. (2013); Muru et al. (2017)

Tallinn: Grudzinska et al. (2014); Heinsalu (2000); Lõugas and Tomek (2013); Muru et al. (2017); Saarse et al. (2003, 2006, 2009); Veski (1998)

Lahemaa: Grudzinska et al. (2013); Muru et al. (2017); Saarse et al. (2009)

Narva-Luga: Jaanits and Liiva (1973); Kessel (1963); Kriiska (1995, 1996); Lepland et al. (1996); Rosentau et al. (2013); Saarse et al. (2003); Sandgren et al. (2004)

St Petersburg: Morozov (2014)

Virolahti: Miettinen (2002)

Porvoo: Donner and Eronen (1981); Eronen (1974); Haila et al. (1991); Jungner and Sonninen (1983); Miettinen et al. (1999)

Helsinki: Alhonen (1972); Alhonen et al. (1978); Hyvärinen (1982, 1984); Hyvärinen (1979); Seppä et al. (2000)

Salo: Eronen (1974); Eronen et al. (1993, 2001); Glückert (1978); Glückert (1976); Leino (1973); Ristaniemi and Glückert (1988); Tolonen and Tolonen (1988)

Turku: Eronen (1974); Eronen et al. (1982, 1995, 2001); Glückert et al. (1992); Glückert (1976)

Aland: Glückert (1978)

Gastrikland: Berglund (2005, 2010, 2012); Hedenström and Risberg (2003)

Angermanland: Berglund (2004, 2008); Wallin (1994)

Alvsbyn: Lindén et al. (2006)

Gunnarsbyn: Lindén et al. (2006)

South Lapland: Eronen (1974); Saarnisto (1981)

Oulu: Eronen (1974)

South Ostrobothnia: Eronen (1974)

Satakunta: Salomaa (1982)

Central Finland: Ristaniemi (1987)

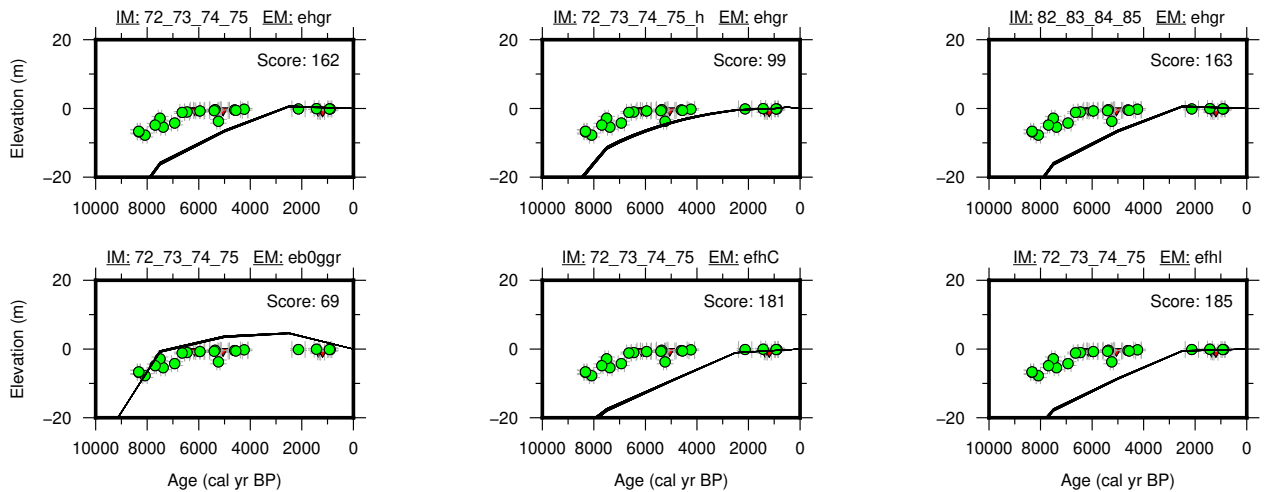
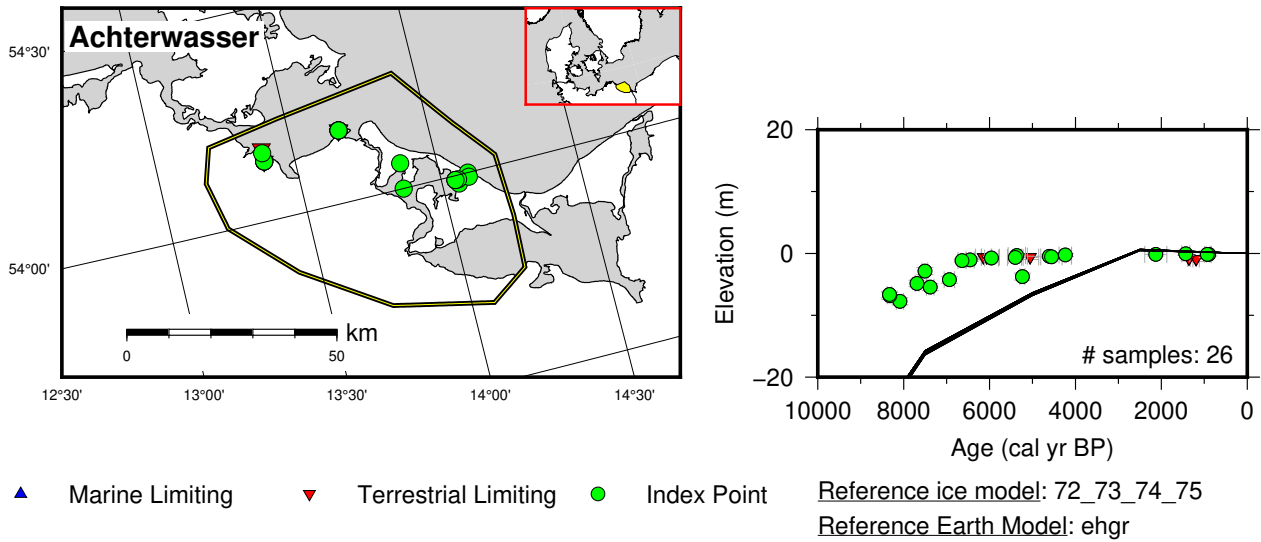
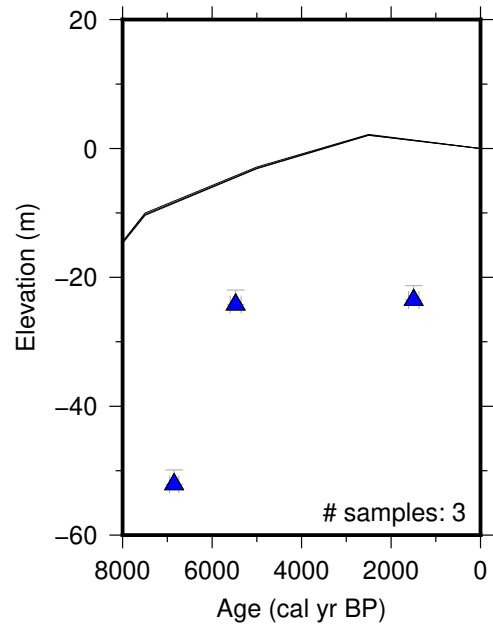
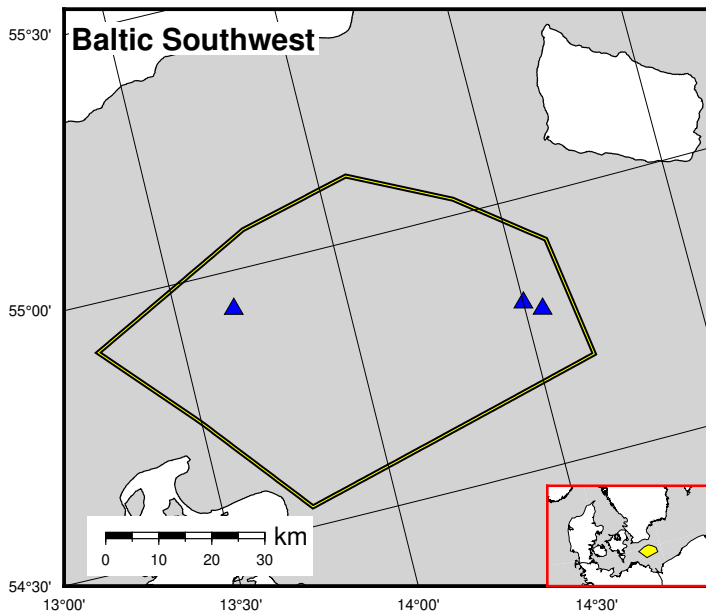


Figure 55: Paleo-sea level and comparison of six models for subregion Baltic Sea, location Achterwasser.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point

Reference ice model: 72_73_74_75

Reference Earth Model: ehgr

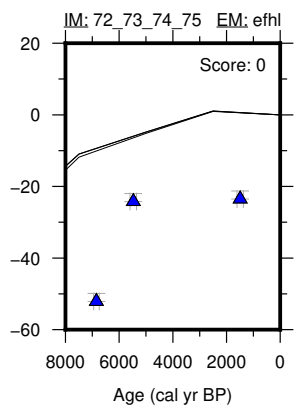
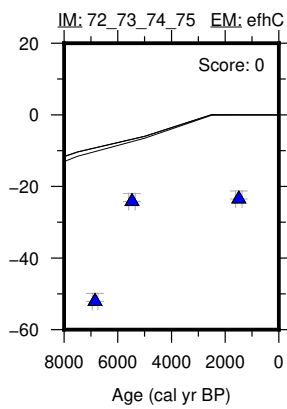
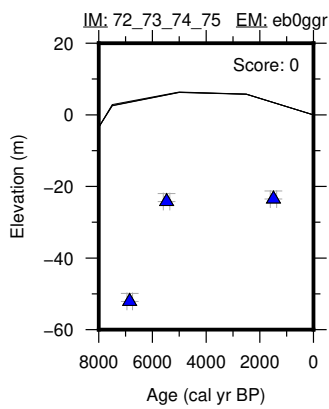
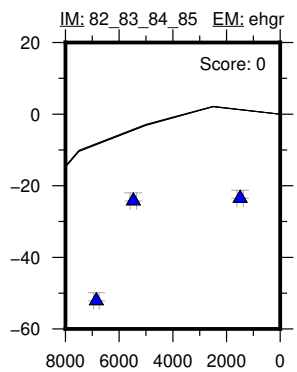
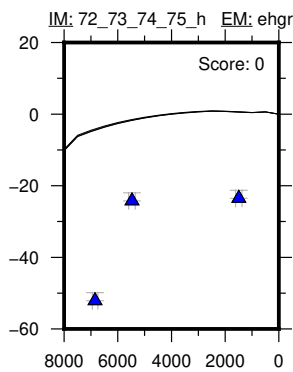
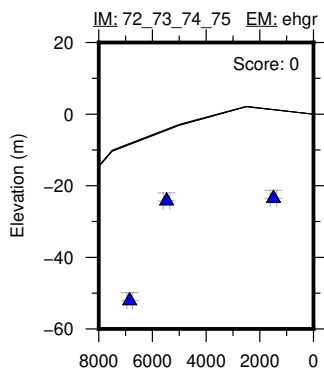


Figure 56: Paleo-sea level and comparison of six models for subregion Baltic Sea, location Baltic Southwest.

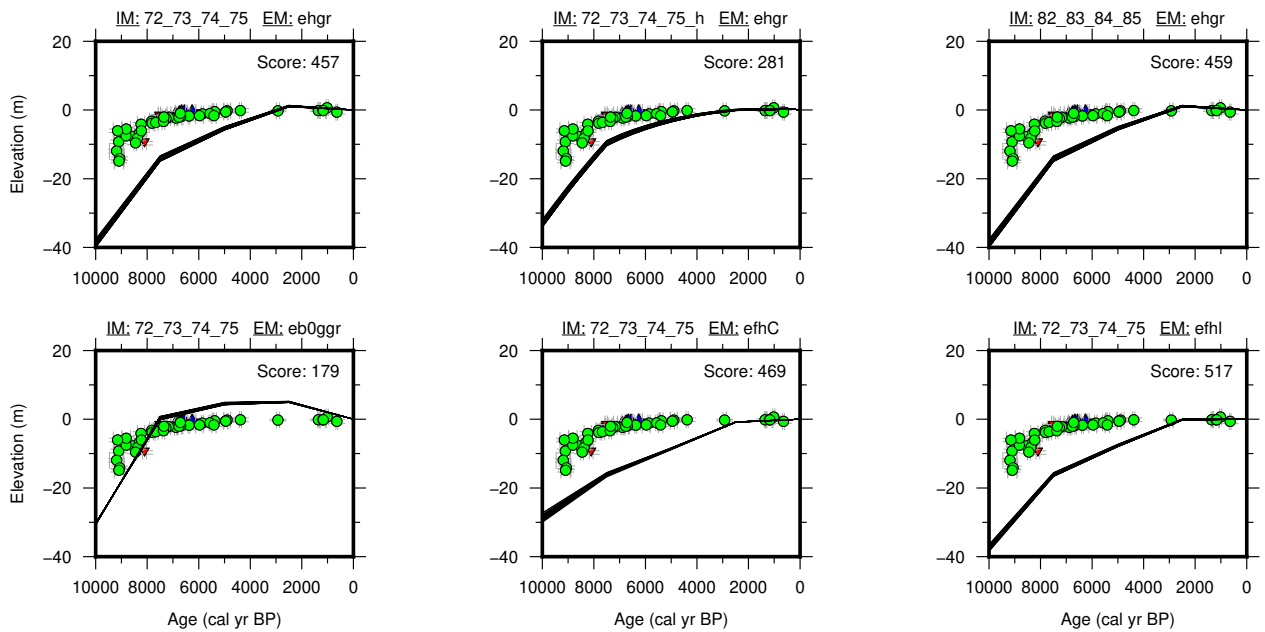
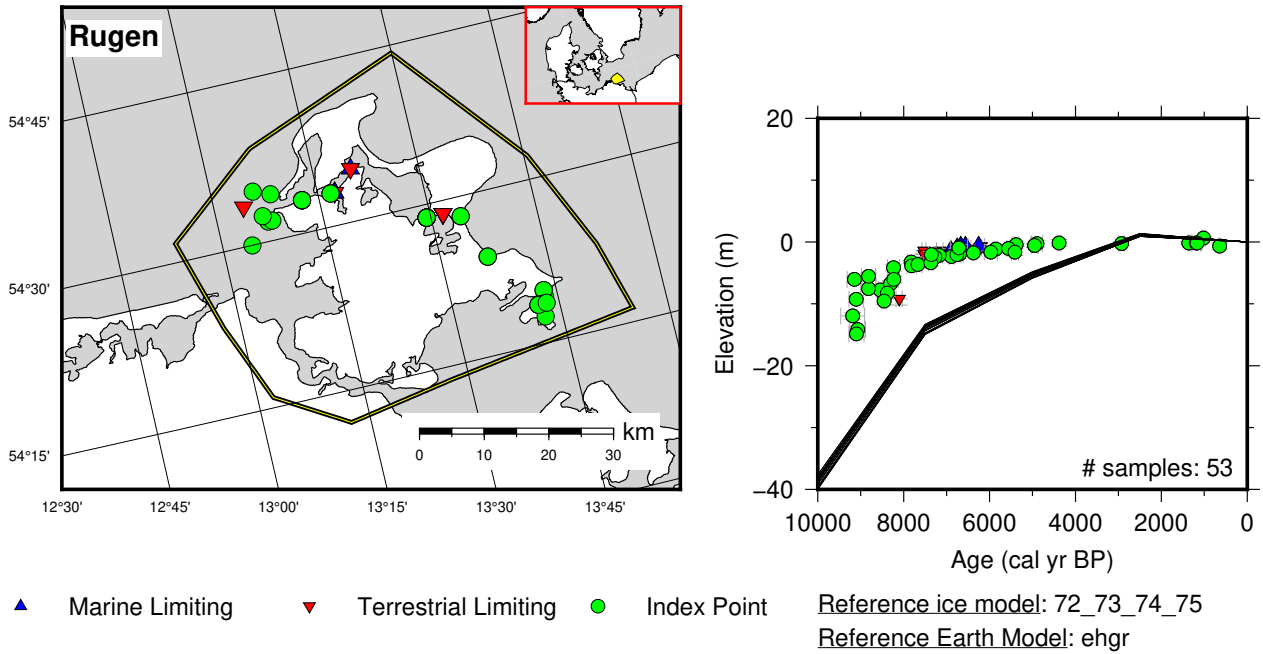


Figure 57: Paleo-sea level and comparison of six models for subregion Baltic Sea, location Rügen.

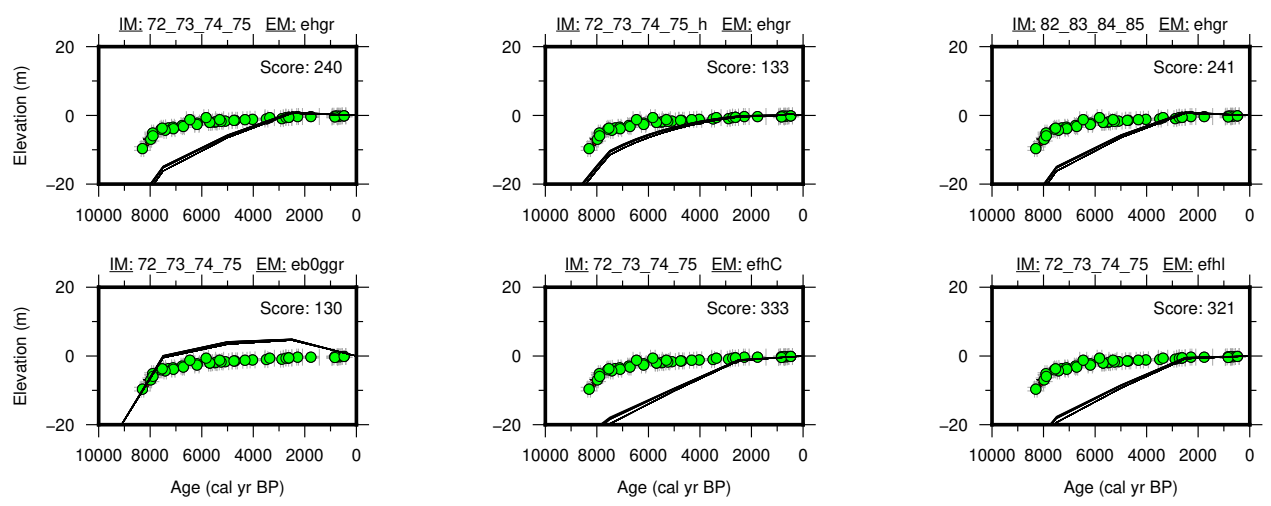
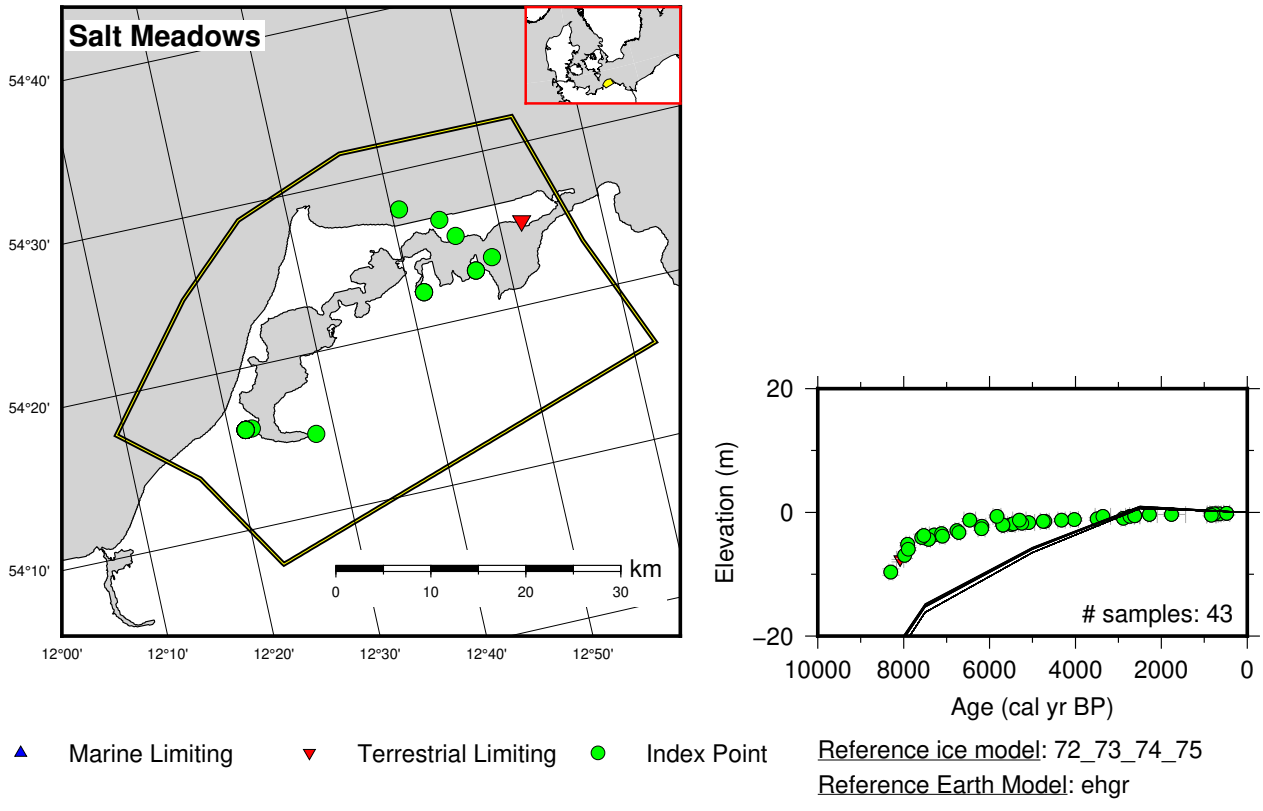


Figure 58: Paleo-sea level and comparison of six models for subregion Baltic Sea, location Salt Meadows.

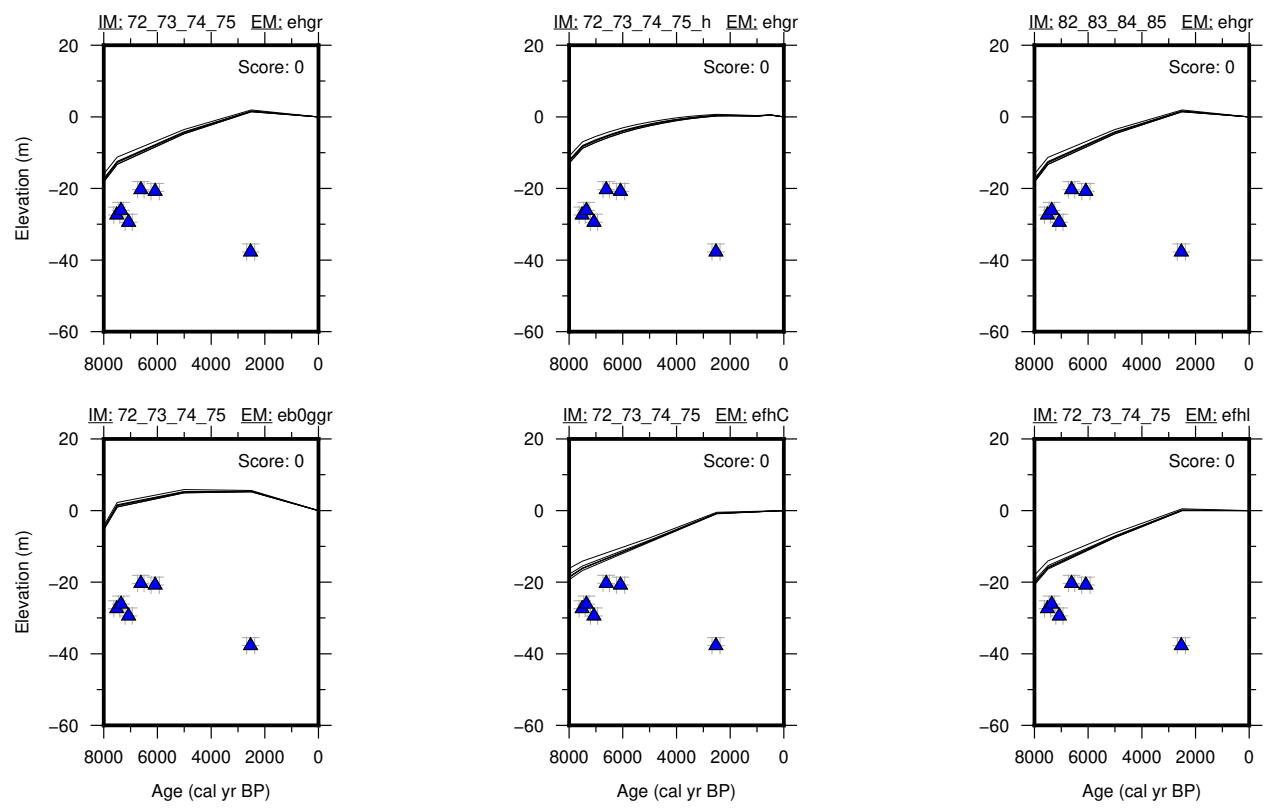
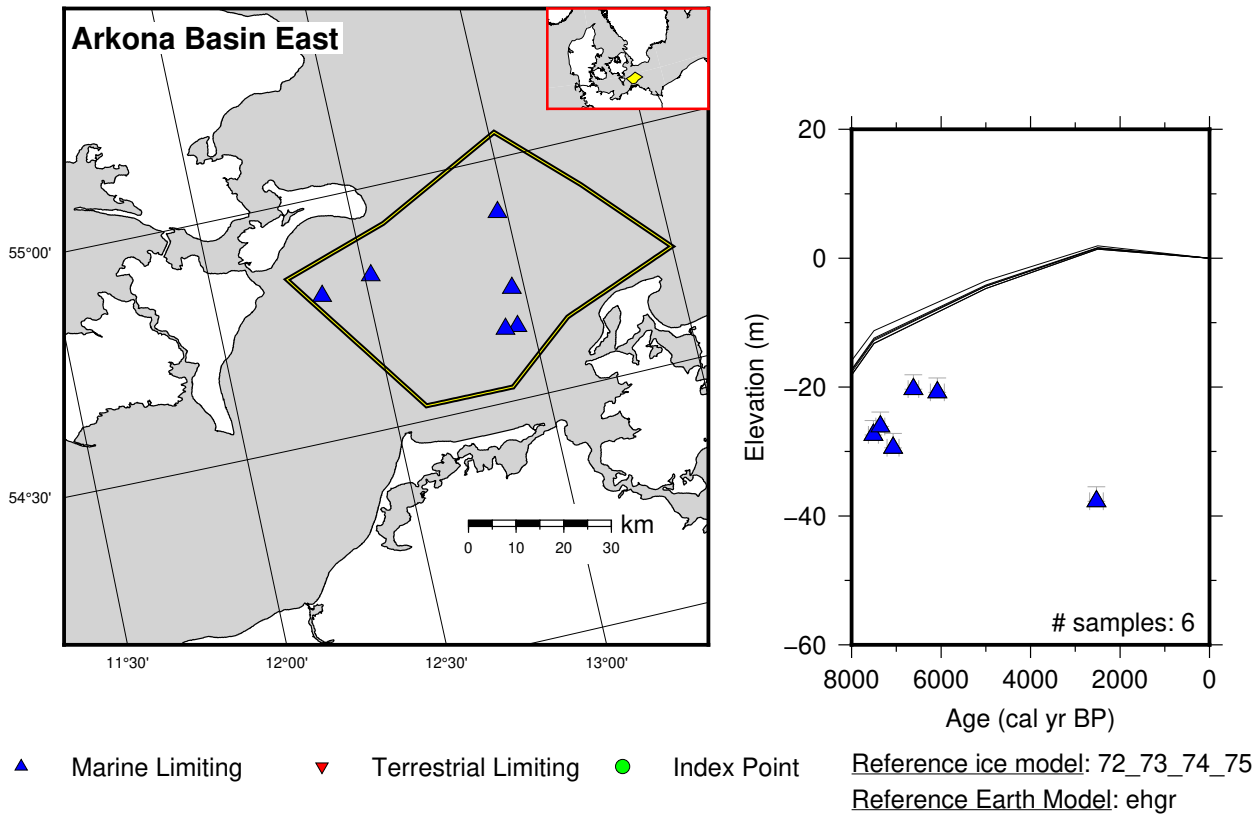


Figure 59: Paleo-sea level and comparison of six models for subregion Baltic Sea, location Arkona Basin East.

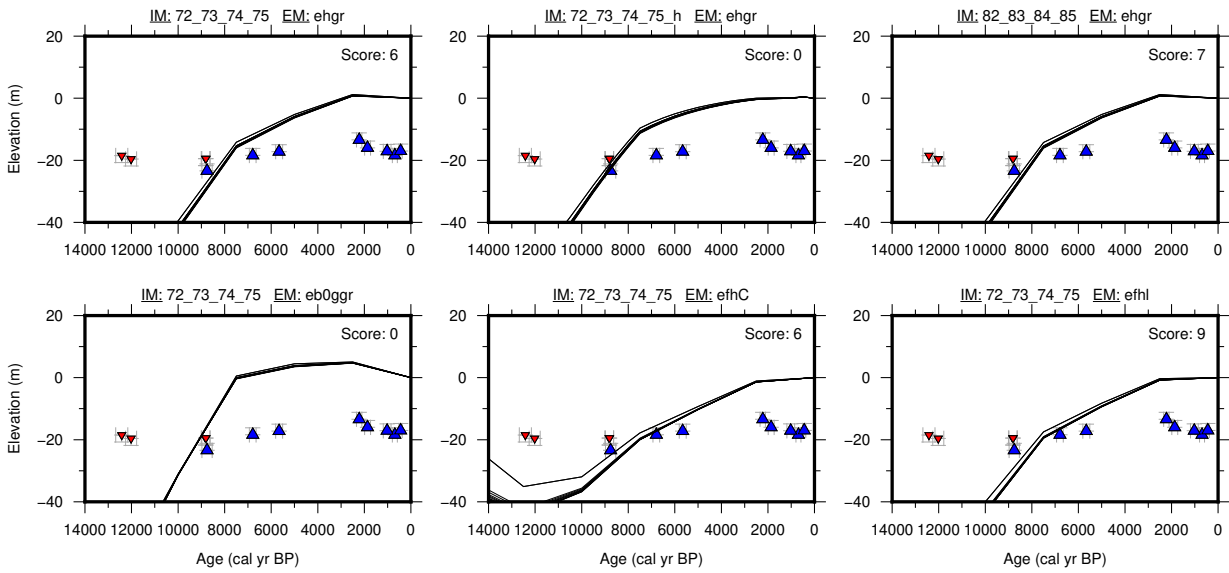
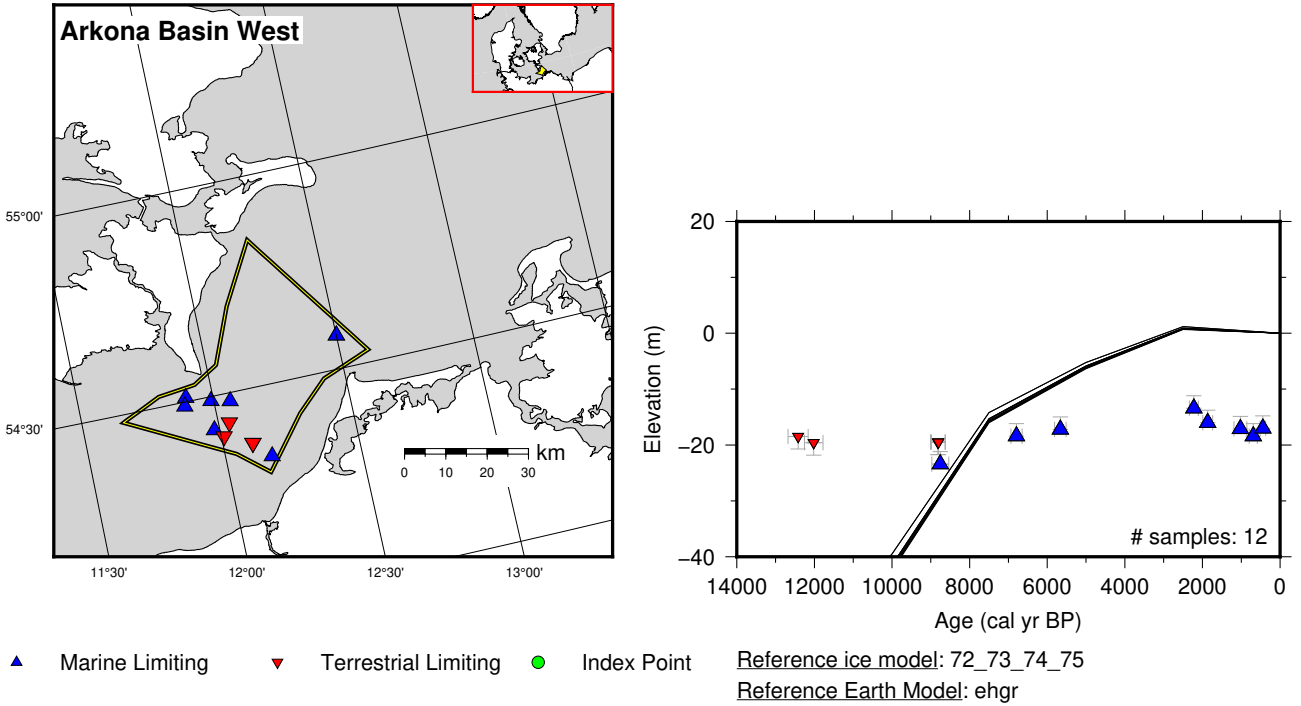
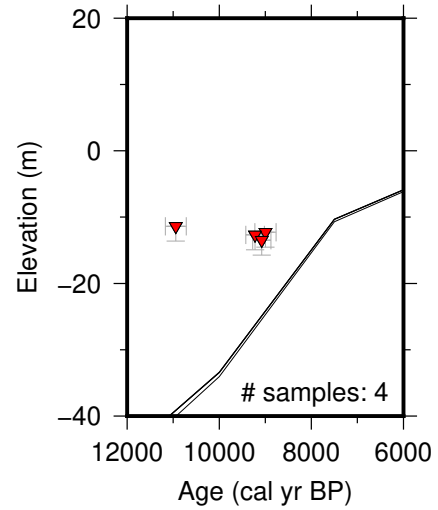
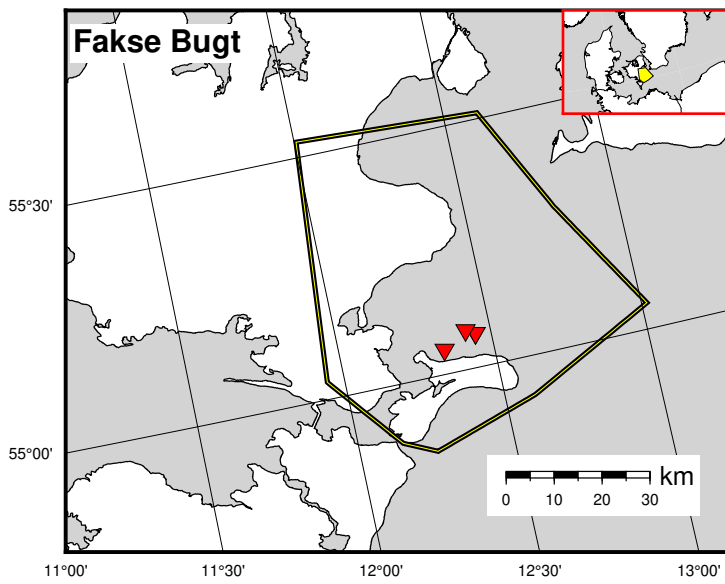


Figure 60: Paleo-sea level and comparison of six models for subregion Baltic Sea, location Arkona Basin West.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point

Reference ice model: 72_73_74_75
Reference Earth Model: ehgr

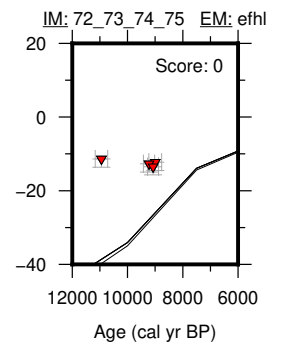
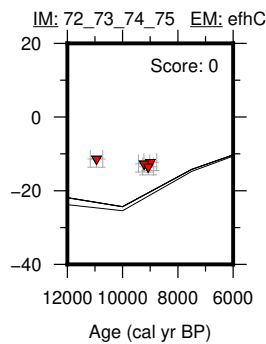
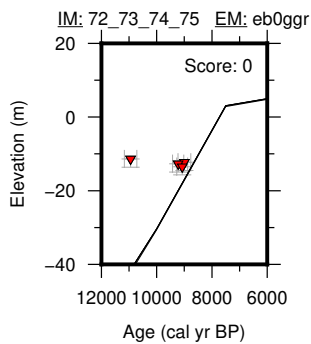
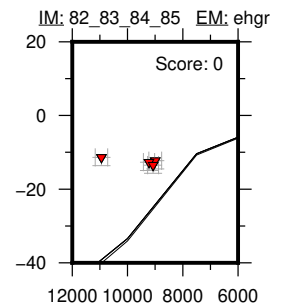
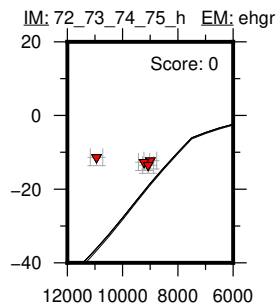
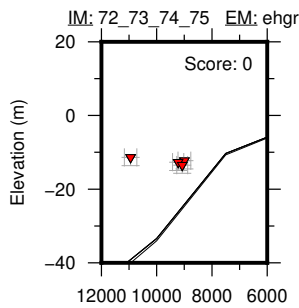


Figure 61: Paleo-sea level and comparison of six models for subregion Baltic Sea, location Fakse Bugt.

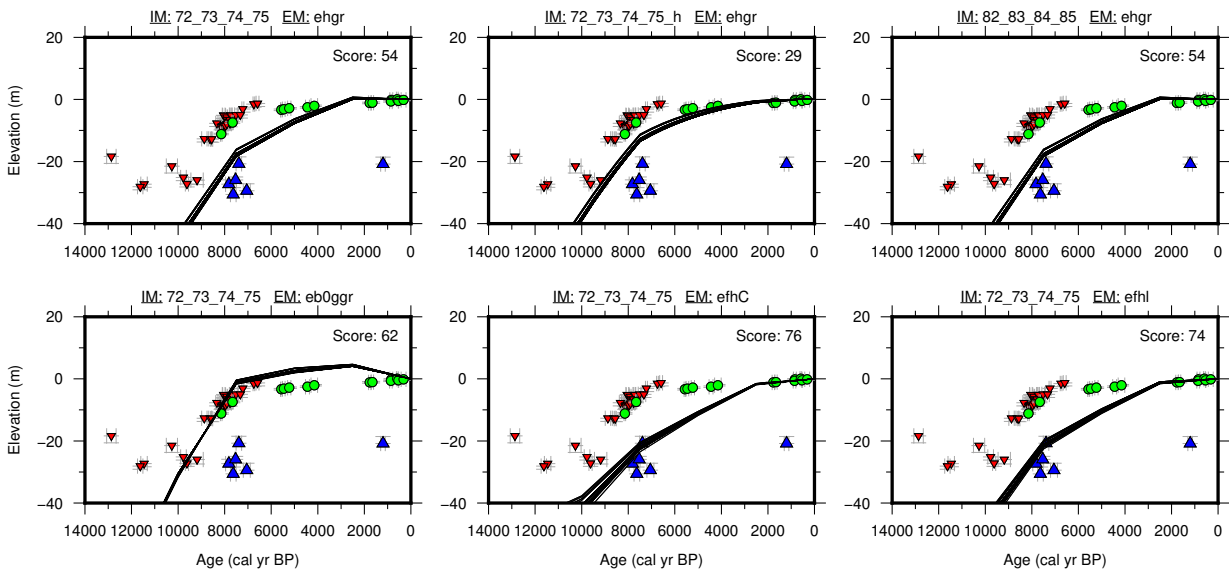
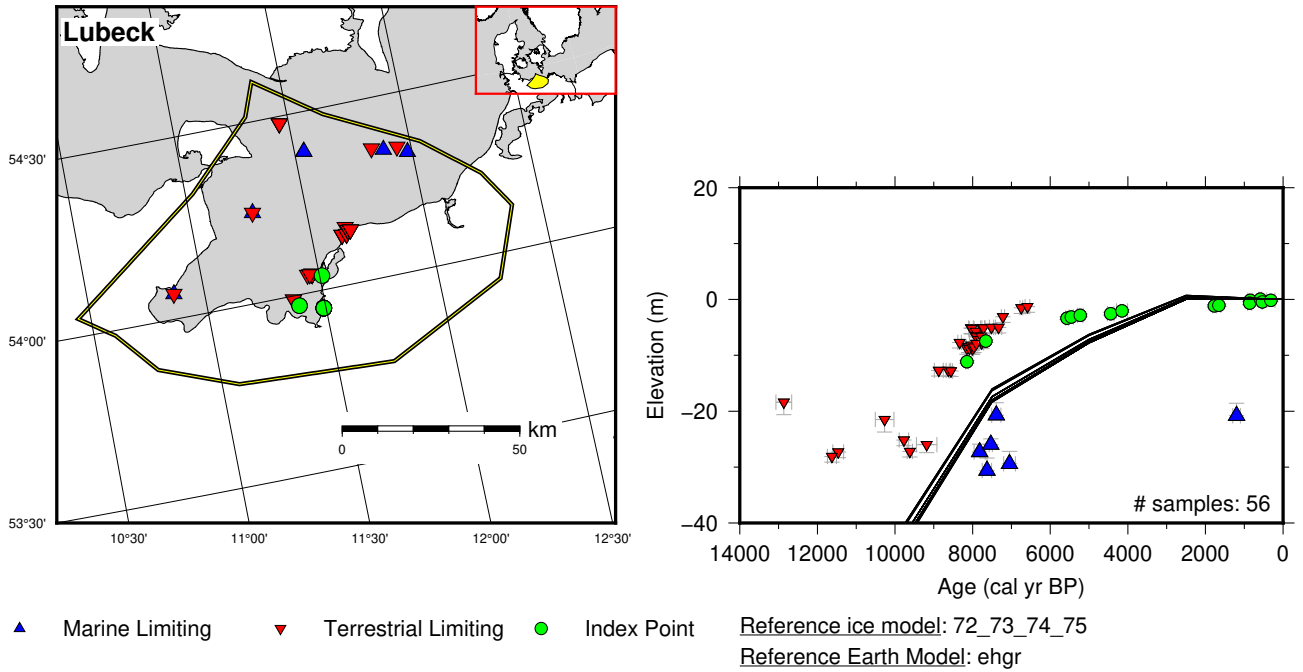


Figure 62: Paleo-sea level and comparison of six models for subregion Baltic Sea, location Lubeck.

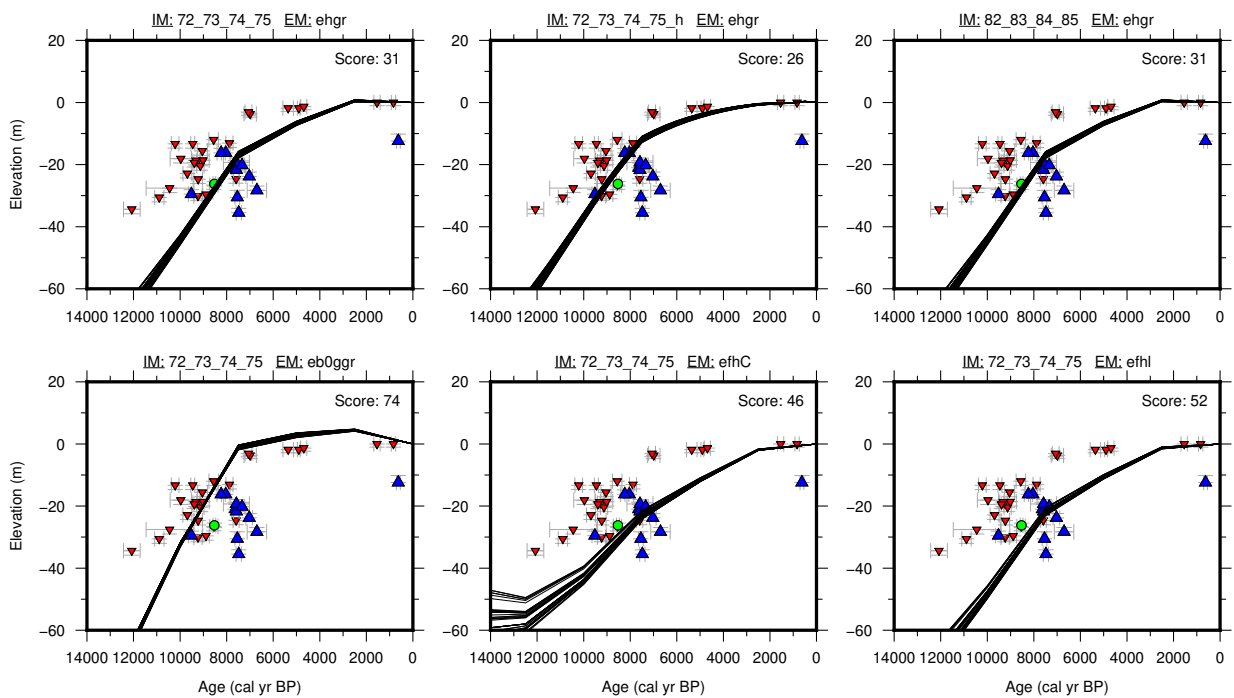
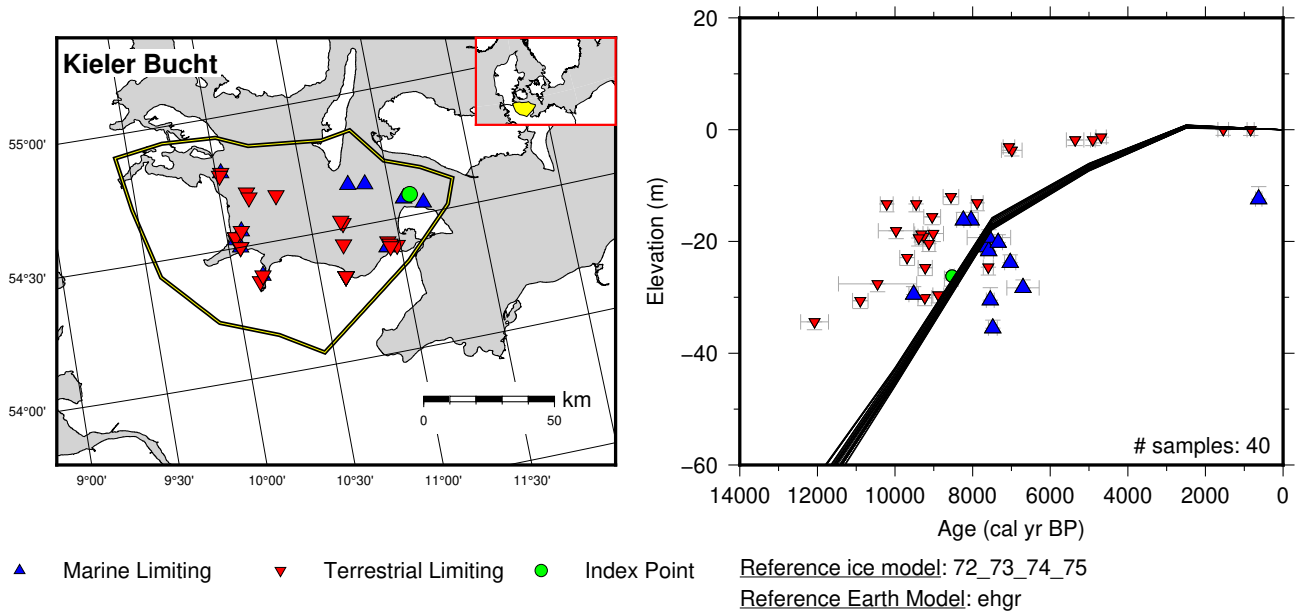
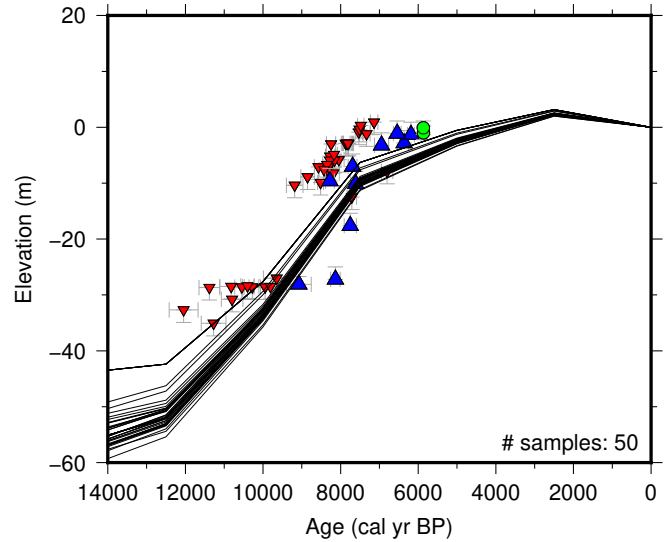
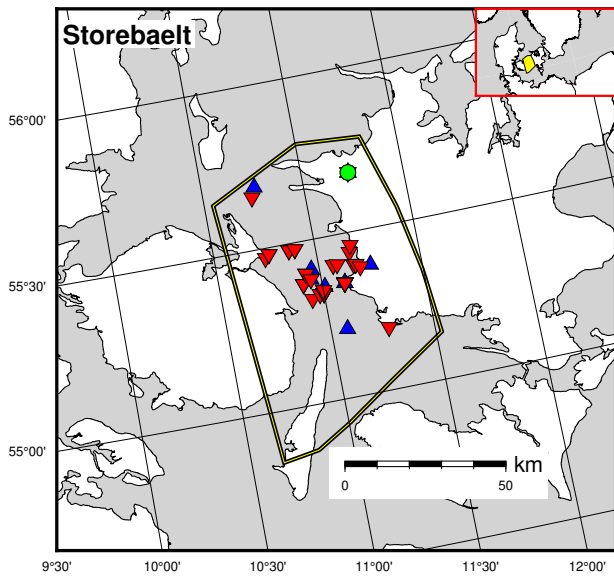


Figure 63: Paleo-sea level and comparison of six models for subregion Baltic Sea, location Kieler Bucht.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point Reference ice model: 72_73_74_75
 Reference Earth Model: ehgr

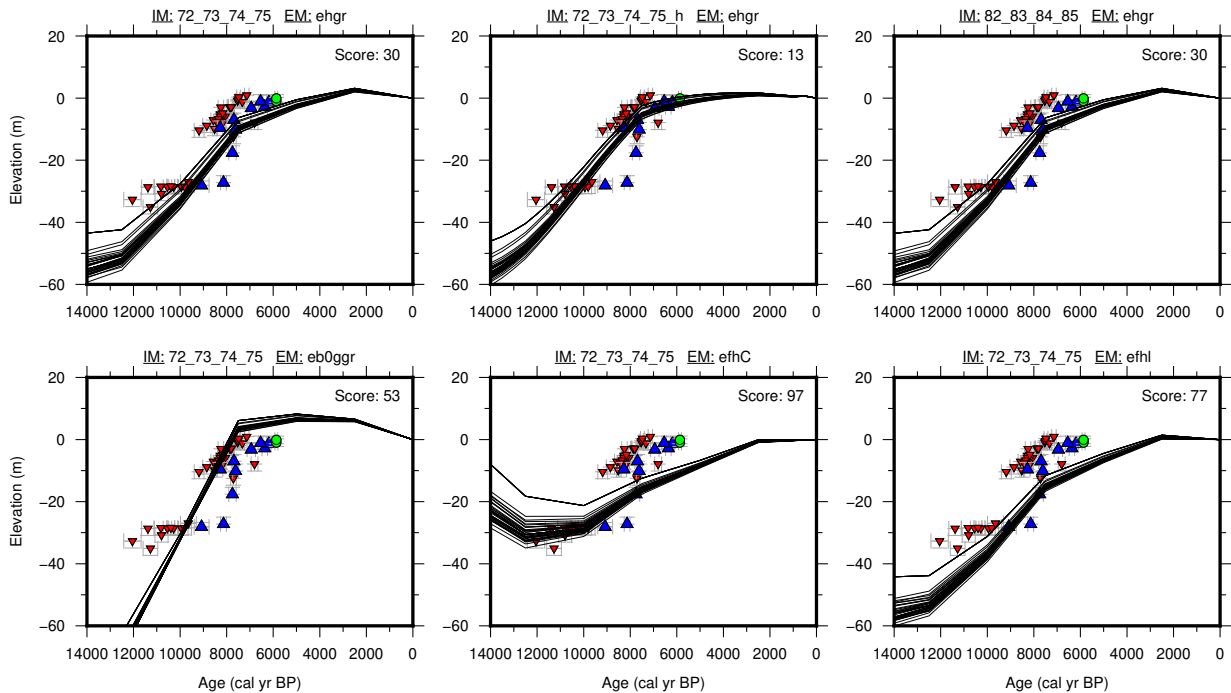


Figure 64: Paleo-sea level and comparison of six models for subregion Baltic Sea, location Storebaelt.

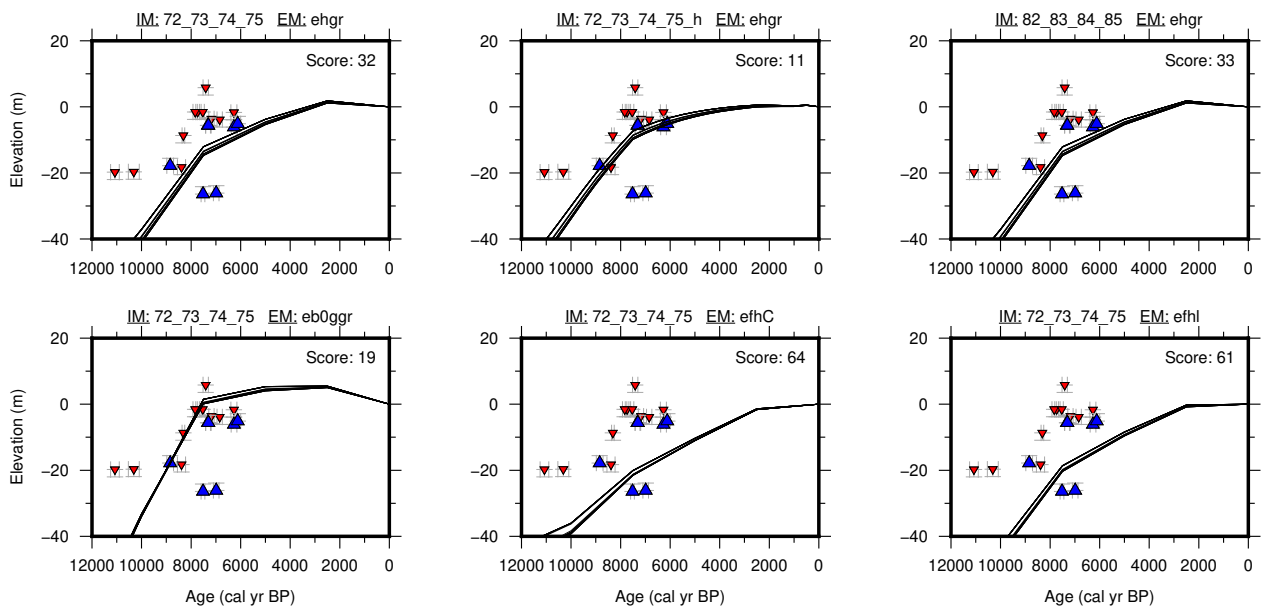
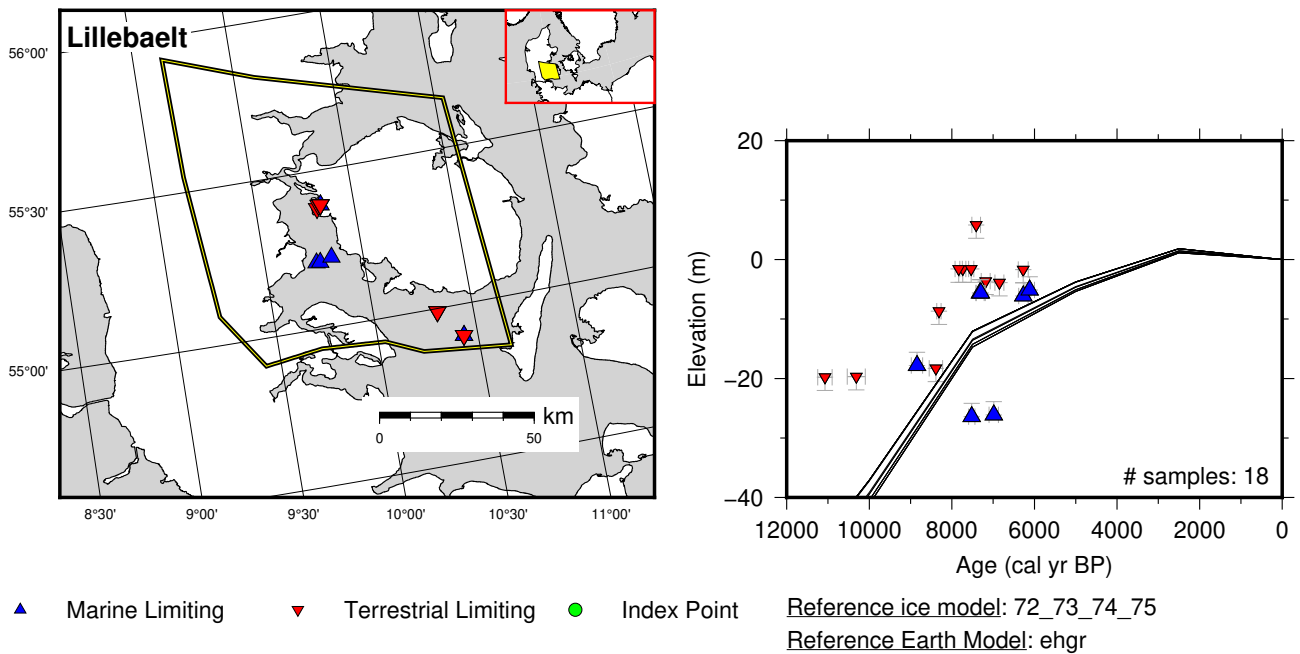


Figure 65: Paleo-sea level and comparison of six models for subregion Baltic Sea, location Lillebaelt.

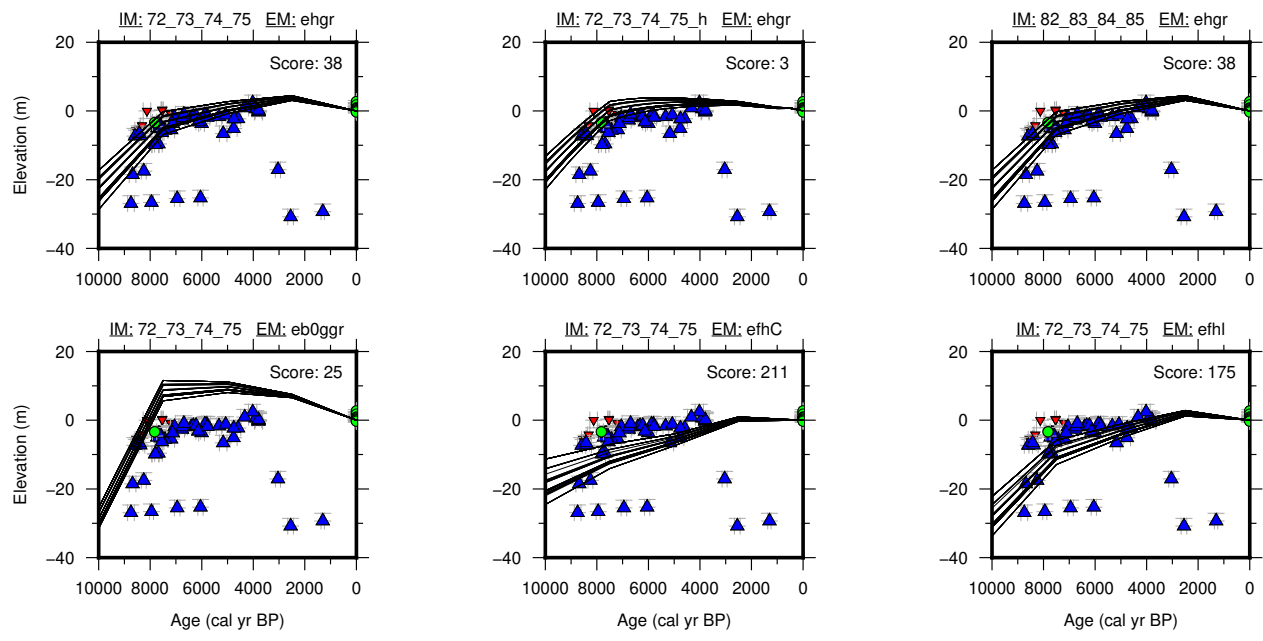
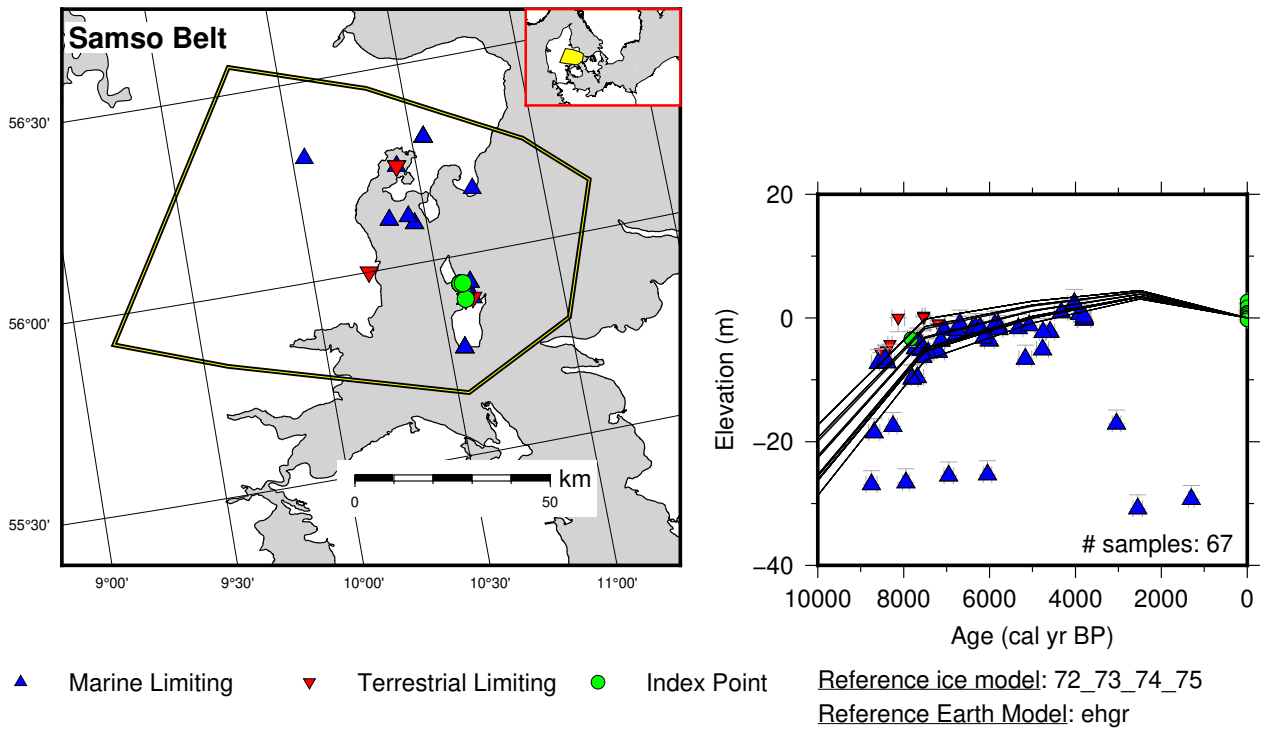


Figure 66: Paleo-sea level and comparison of six models for subregion Baltic Sea, location Samsø Belt.

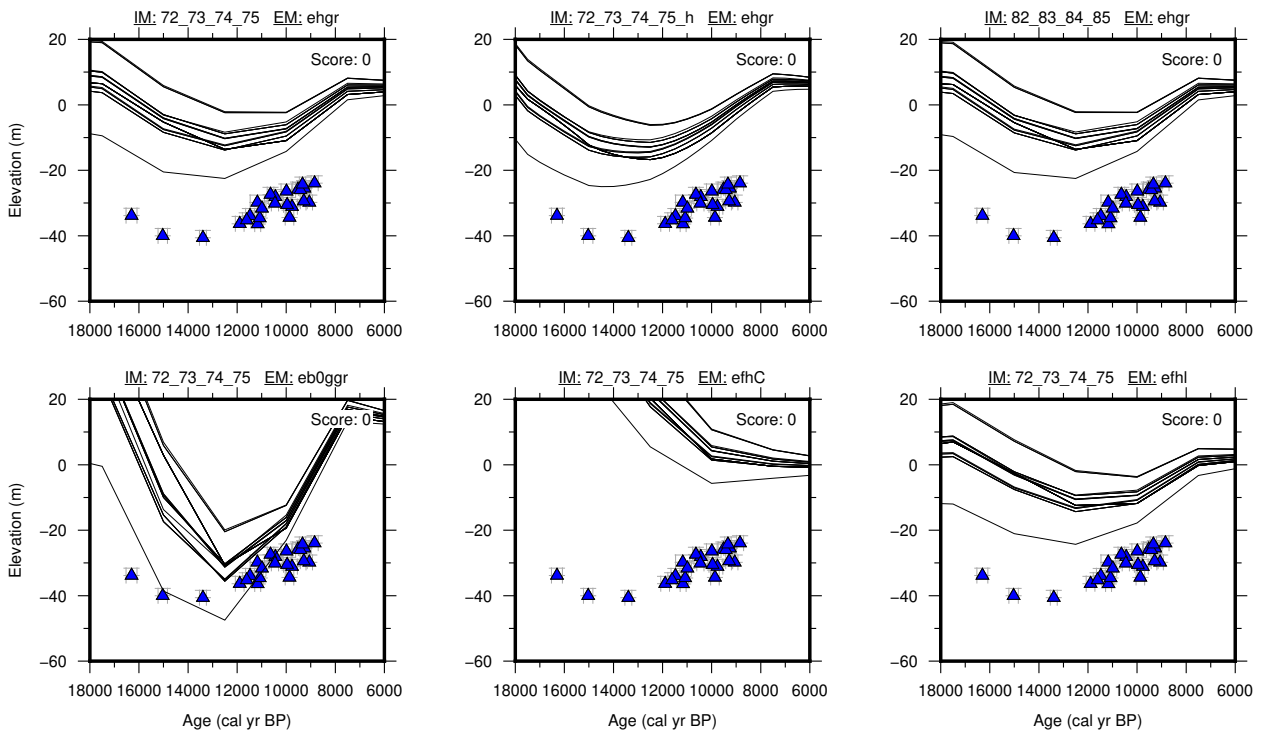
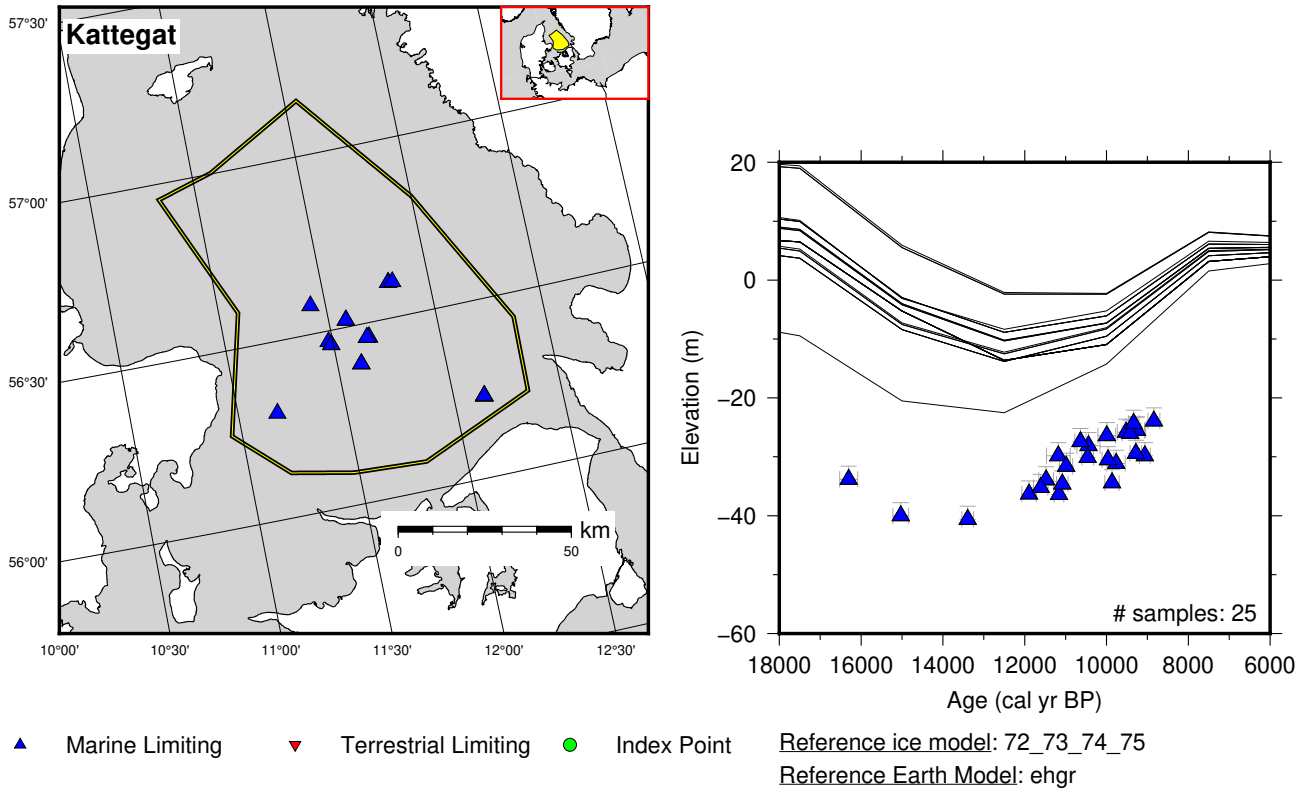


Figure 67: Paleo-sea level and comparison of six models for subregion Baltic Sea, location Kattegat.

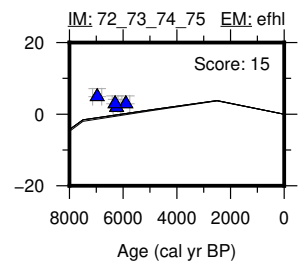
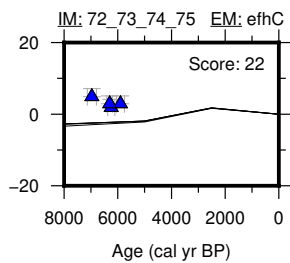
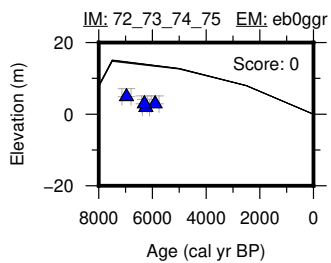
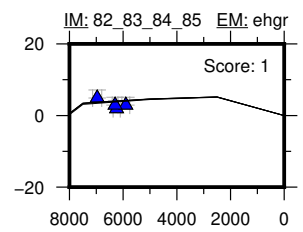
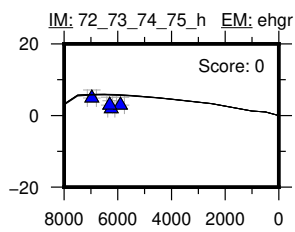
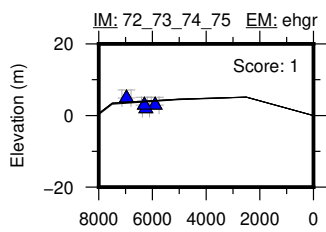
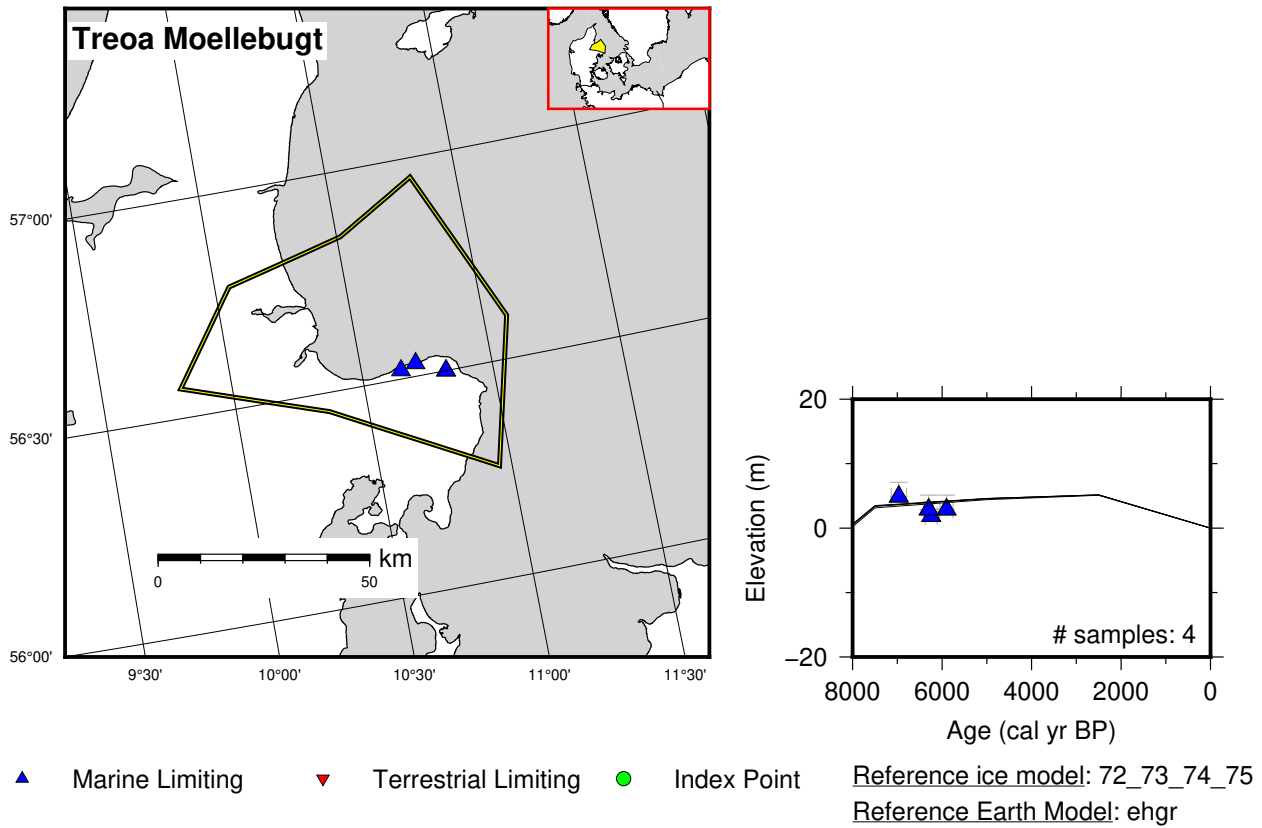
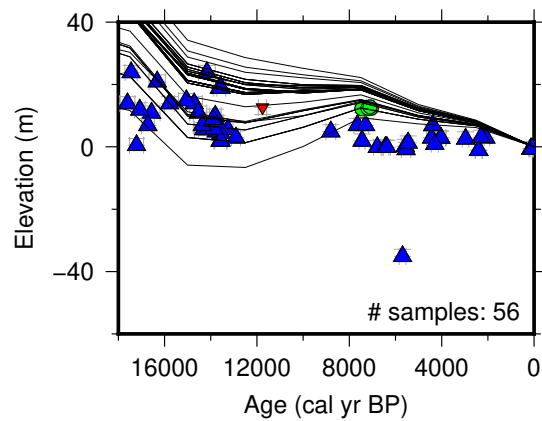
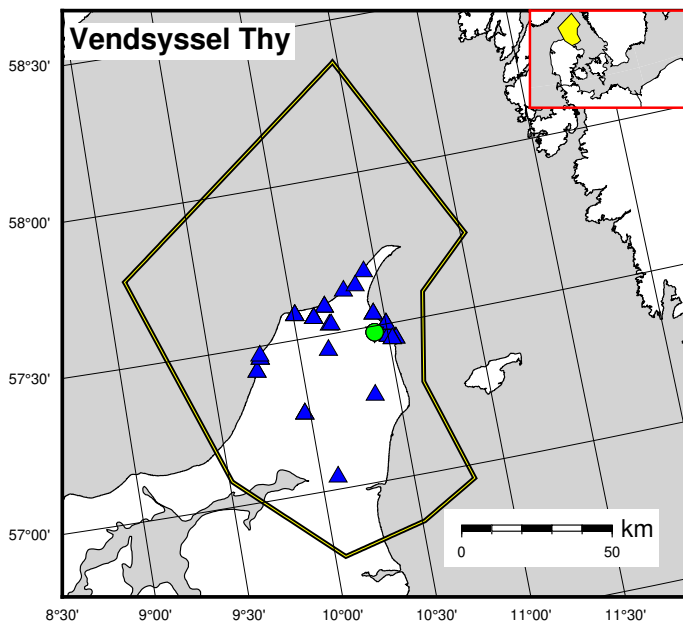


Figure 68: Paleo-sea level and comparison of six models for subregion Baltic Sea, location Treoa Moellebugt.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point

Reference ice model: 72_73_74_75
Reference Earth Model: ehgr

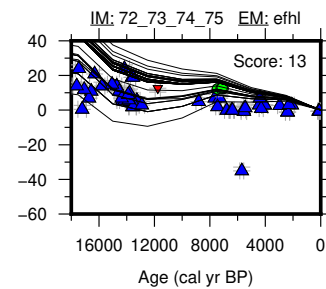
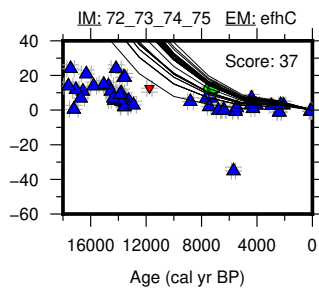
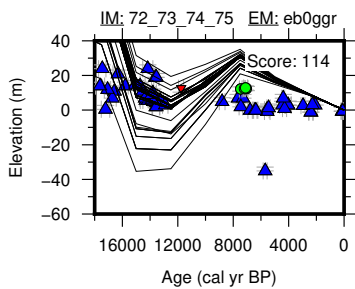
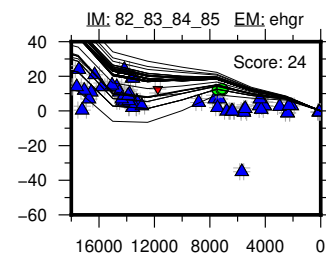
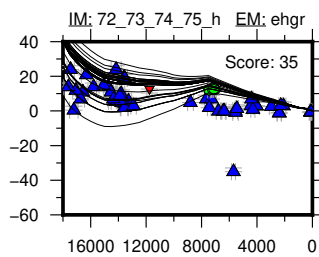
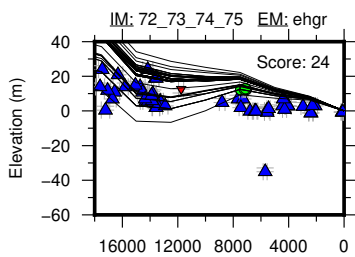
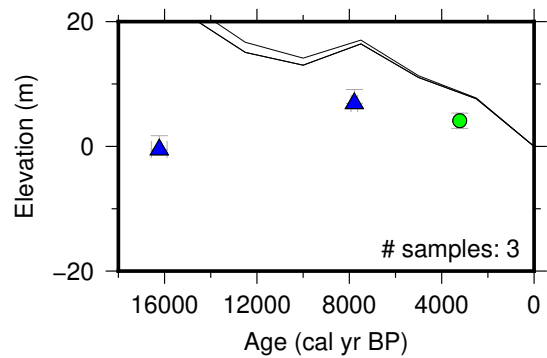
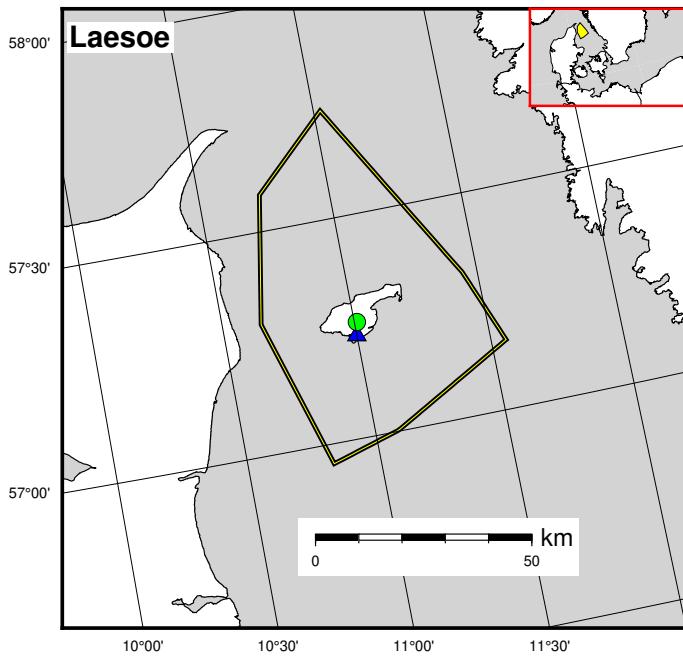


Figure 69: Paleo-sea level and comparison of six models for subregion Baltic Sea, location Vendsyssel Thy.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point

Reference ice model: 72_73_74_75

Reference Earth Model: ehgr

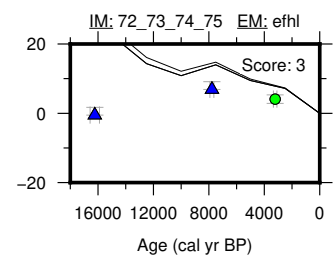
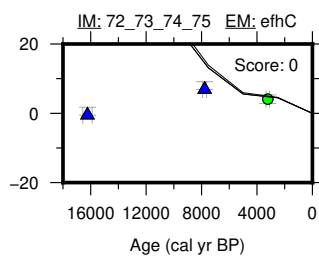
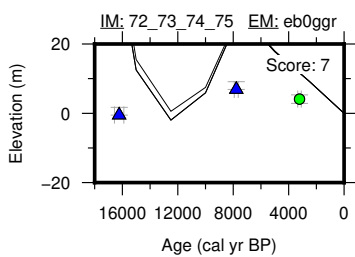
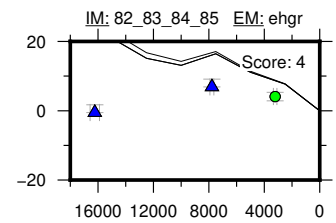
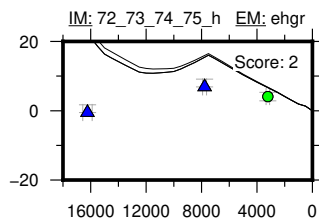
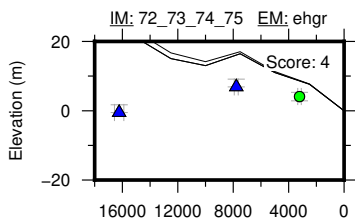


Figure 70: Paleo-sea level and comparison of six models for subregion Baltic Sea, location Laesoe.

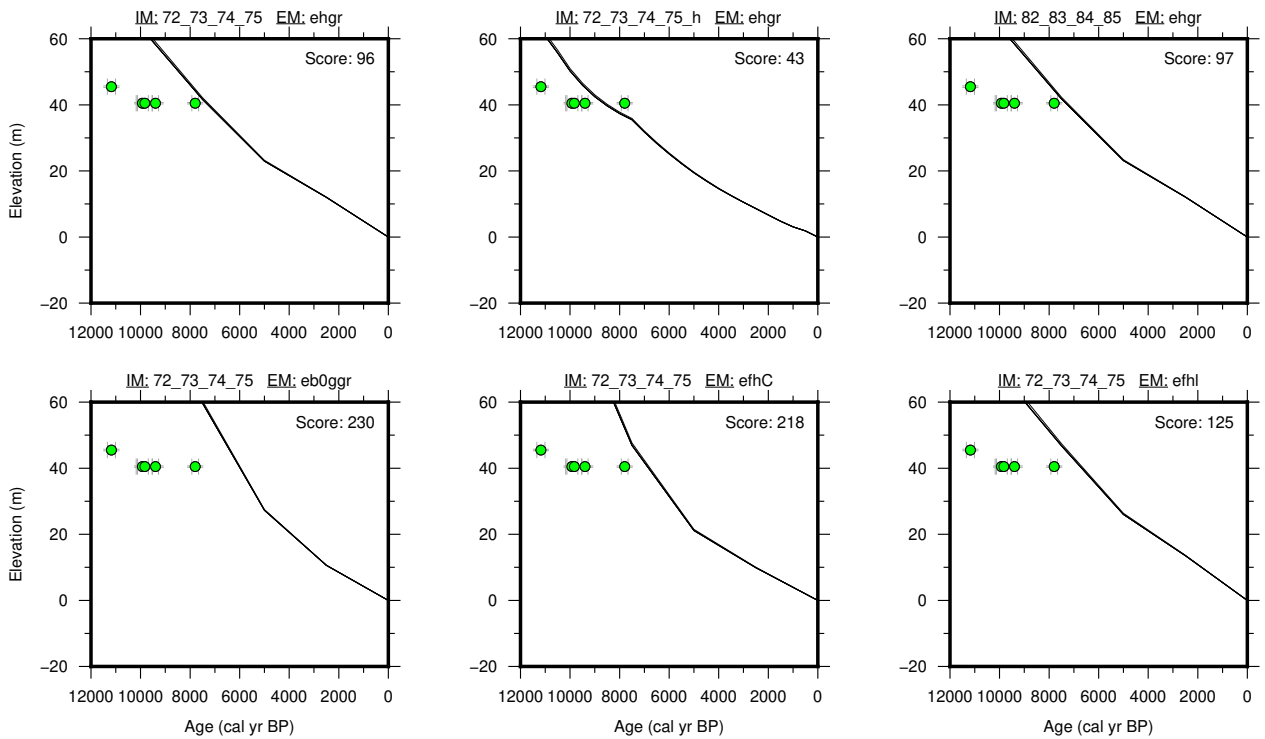
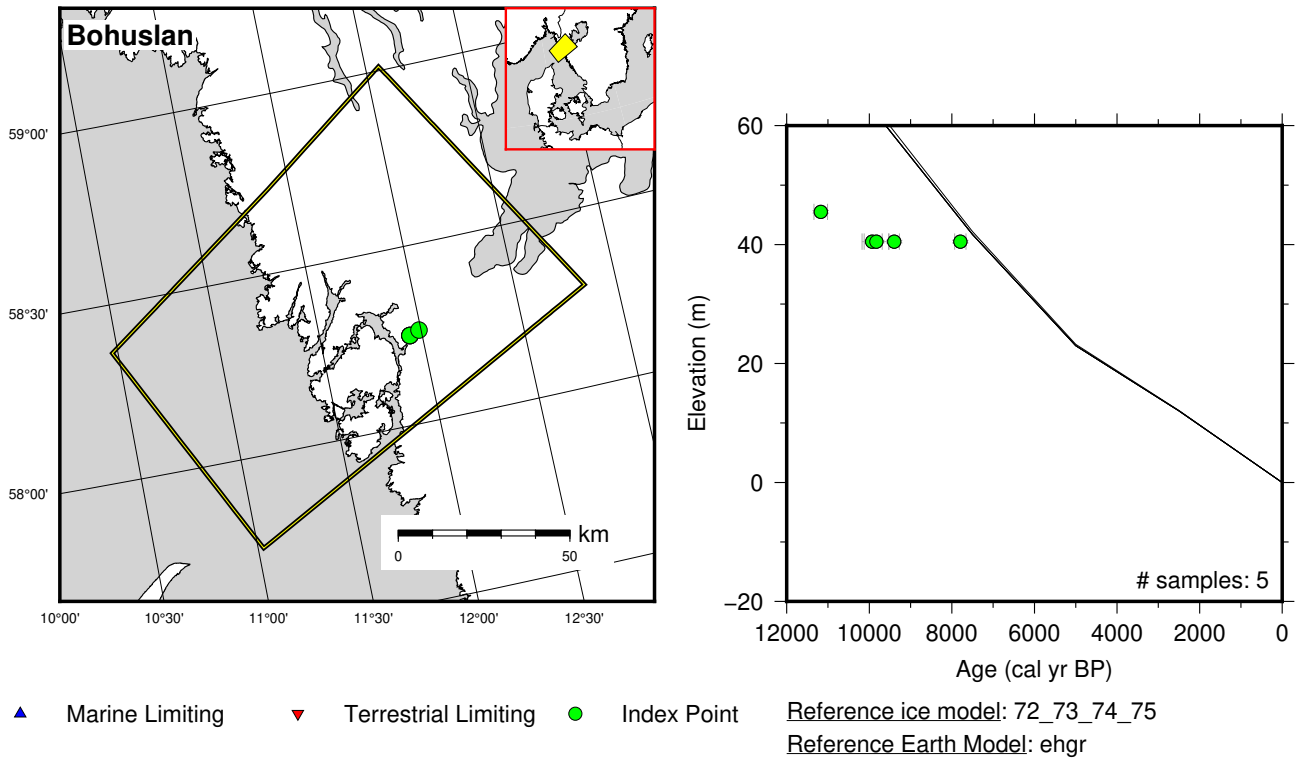
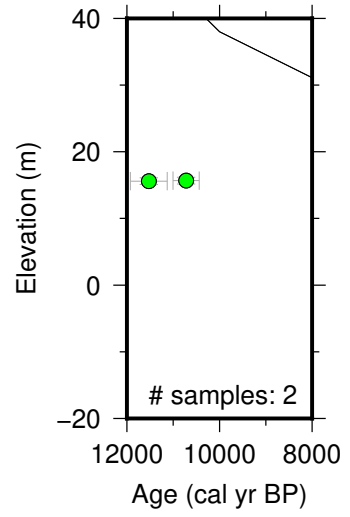
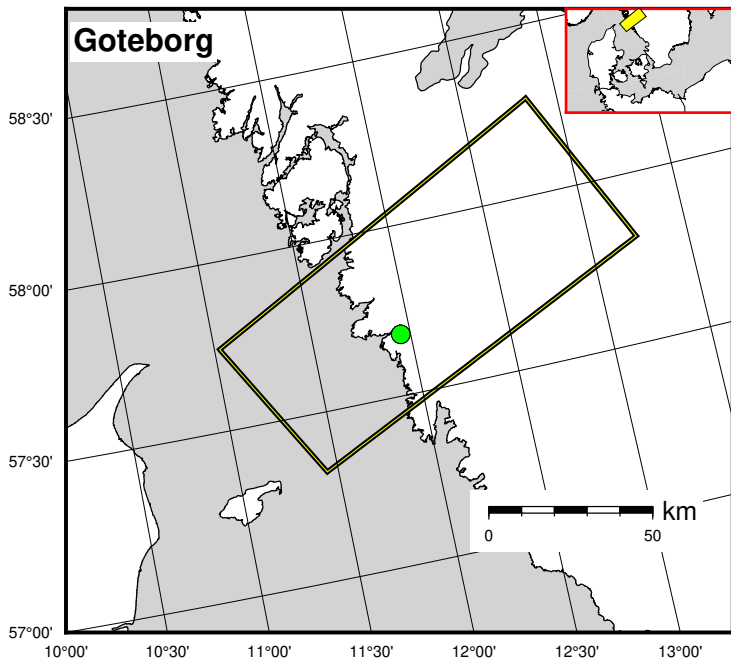


Figure 71: Paleo-sea level and comparison of six models for subregion Baltic Sea, location Bohuslan.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point

Reference ice model: 72_73_74_75
Reference Earth Model: ehgr

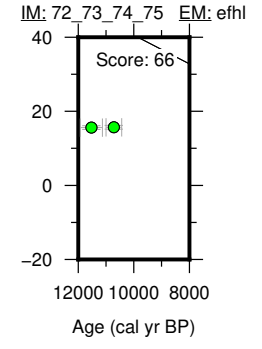
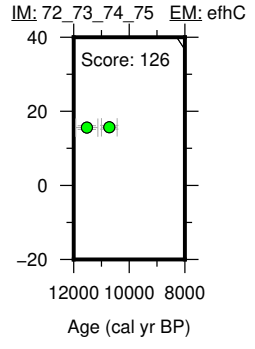
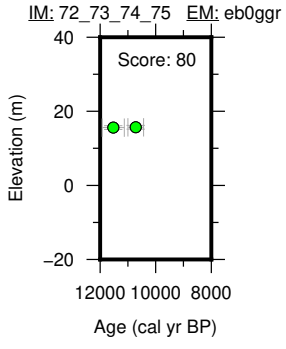
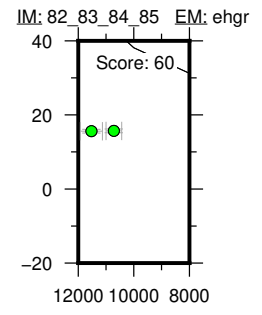
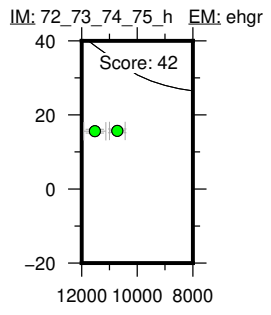
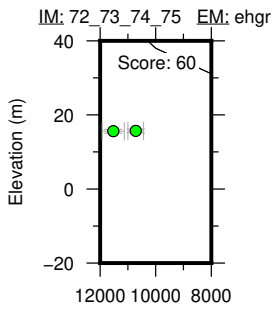
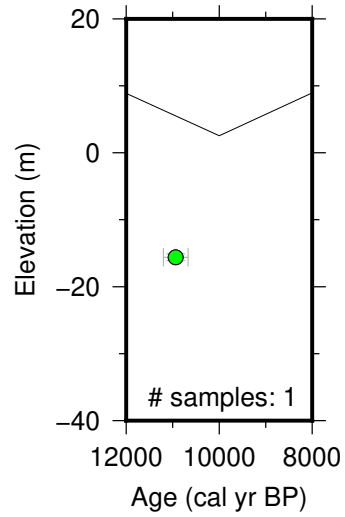
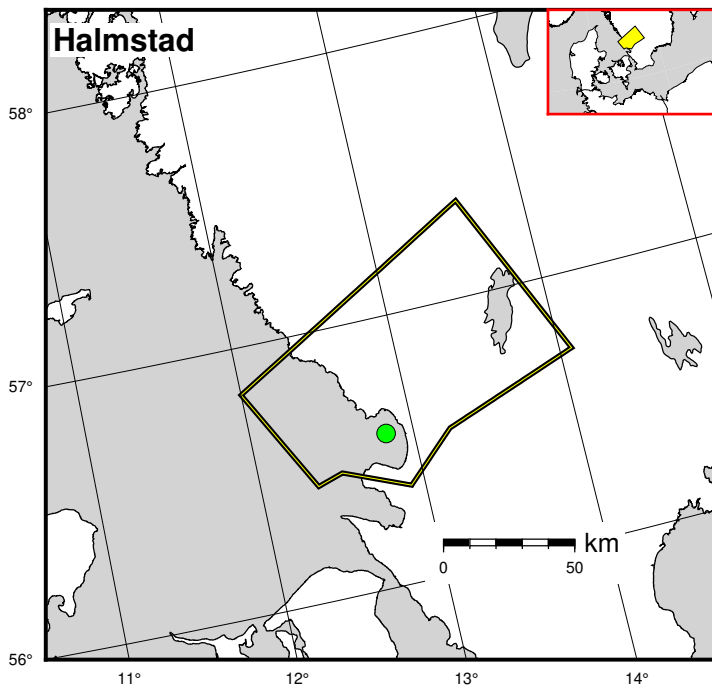


Figure 72: Paleo-sea level and comparison of six models for subregion Baltic Sea, location Goteborg.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point

Reference ice model: 72_73_74_75
Reference Earth Model: ehgr

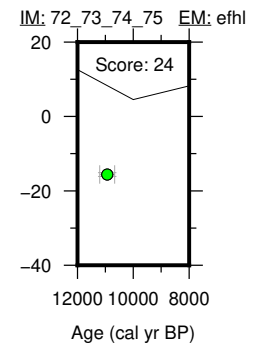
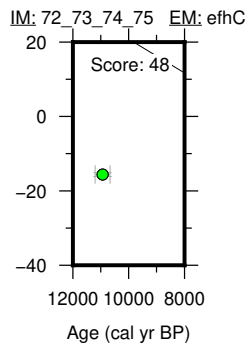
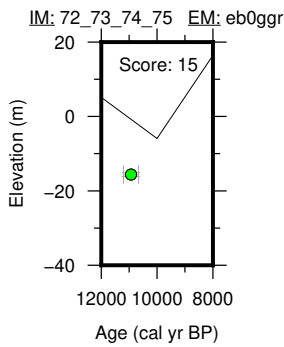
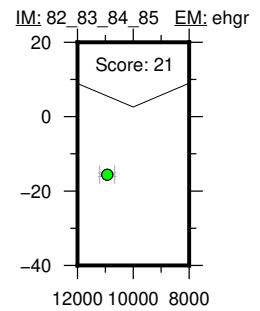
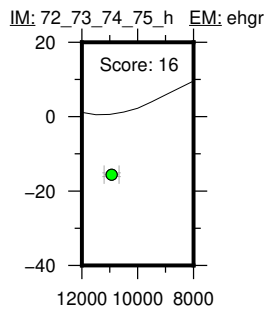
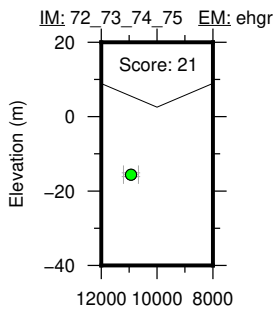
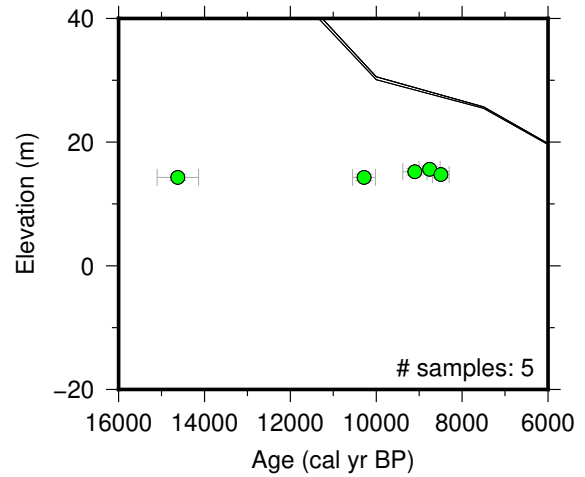
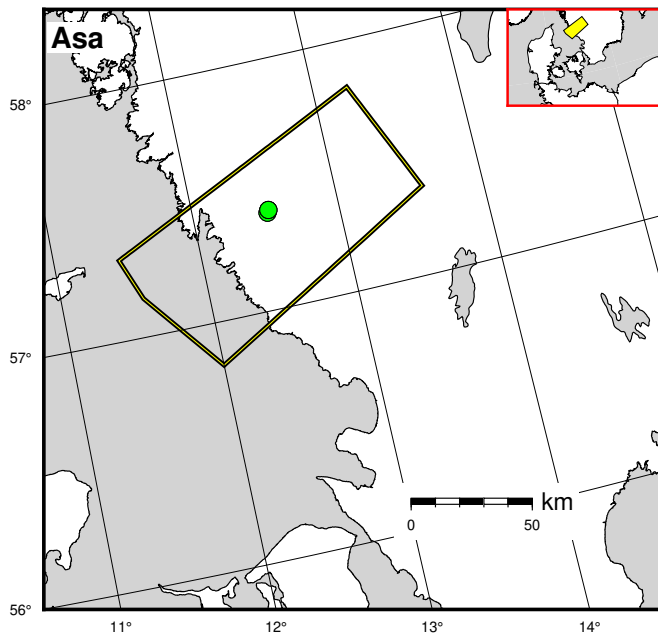


Figure 73: Paleo-sea level and comparison of six models for subregion Baltic Sea, location Halmstad.



▲ Marine Limiting
 ▼ Terrestrial Limiting
 ● Index Point
 Reference ice model: 72_73_74_75
 Reference Earth Model: ehgr

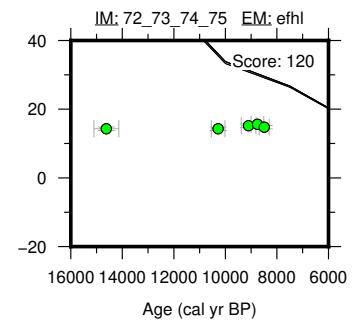
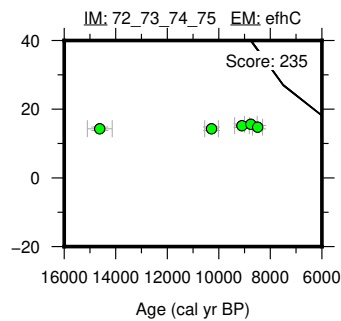
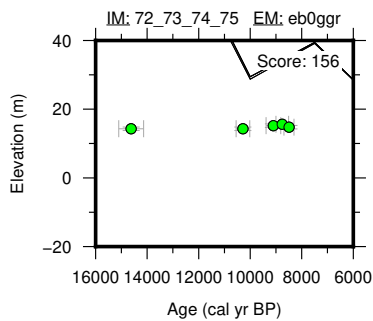
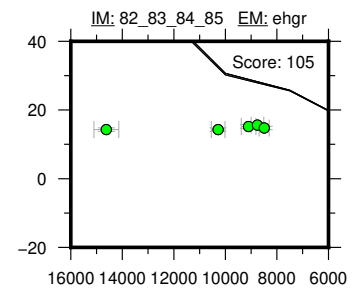
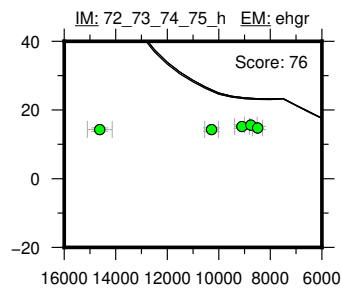
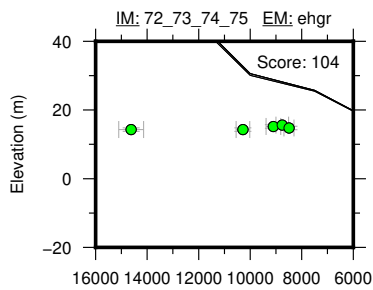


Figure 74: Paleo-sea level and comparison of six models for subregion Baltic Sea, location Asa.

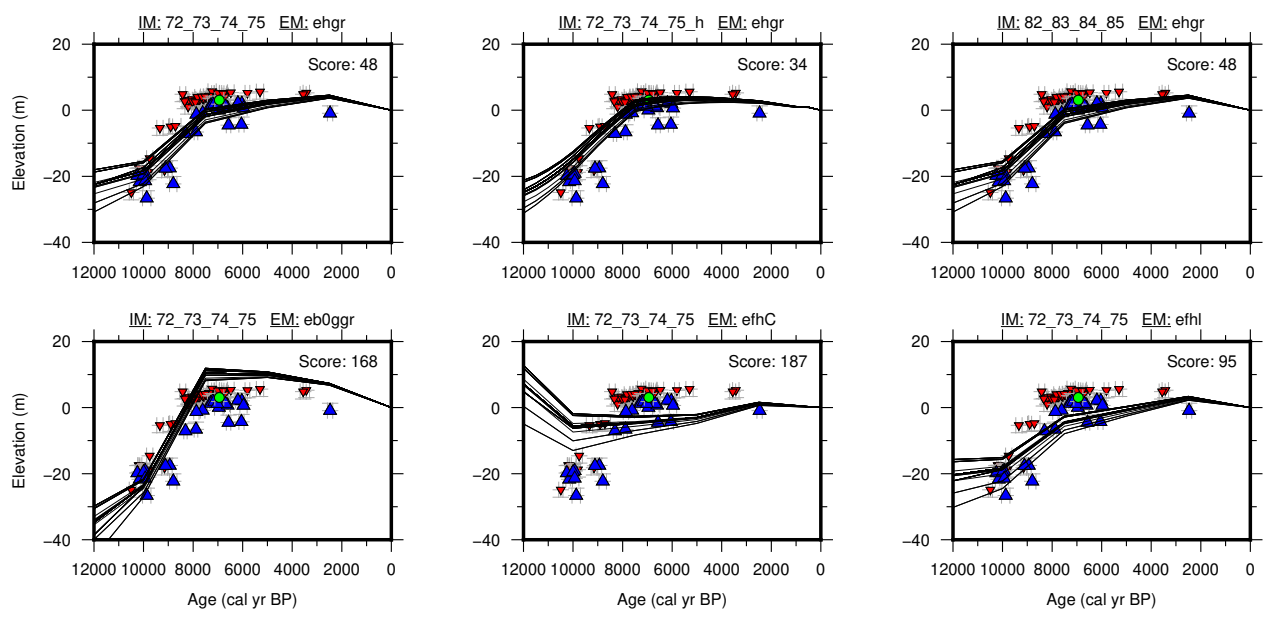
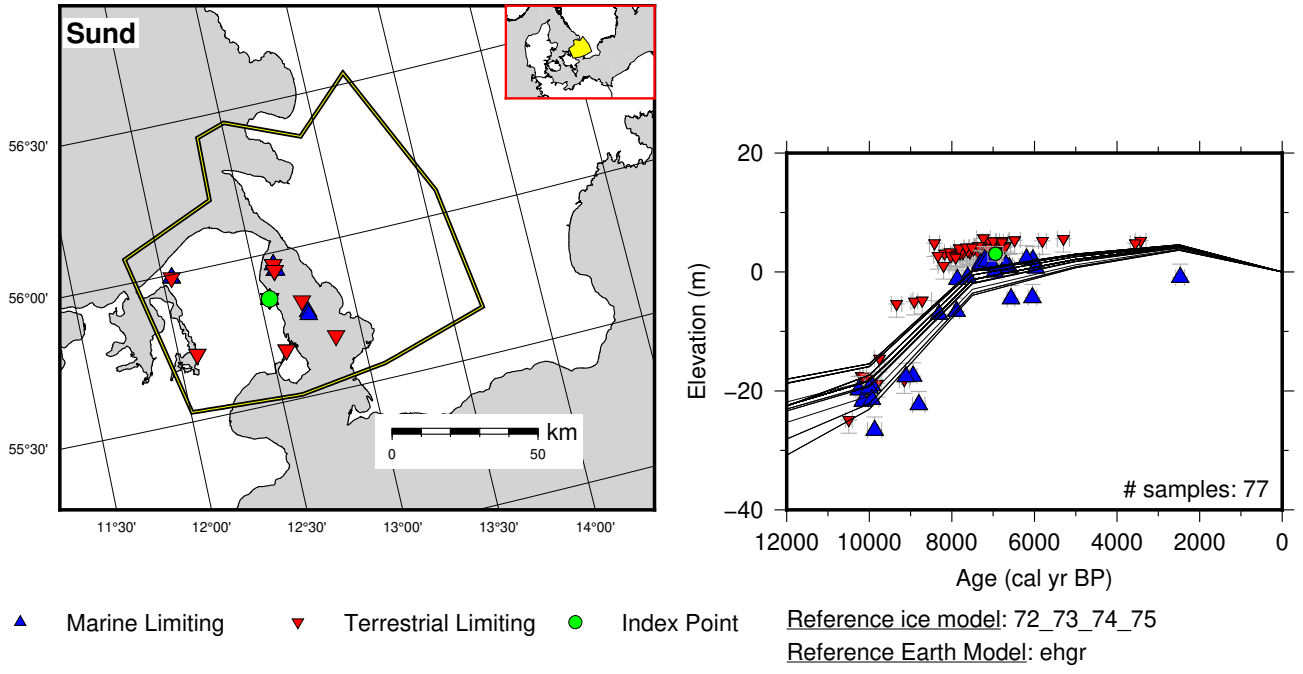
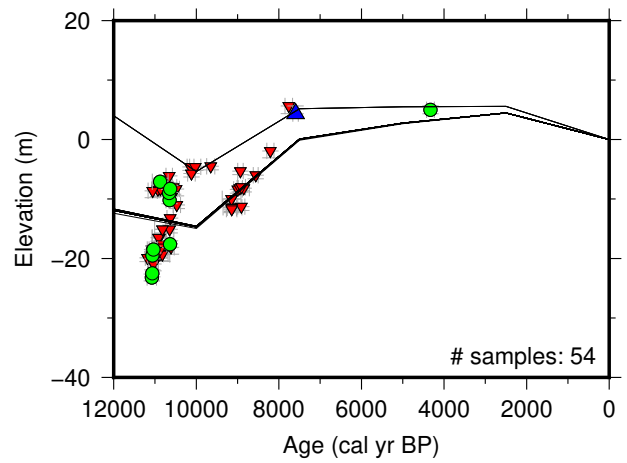
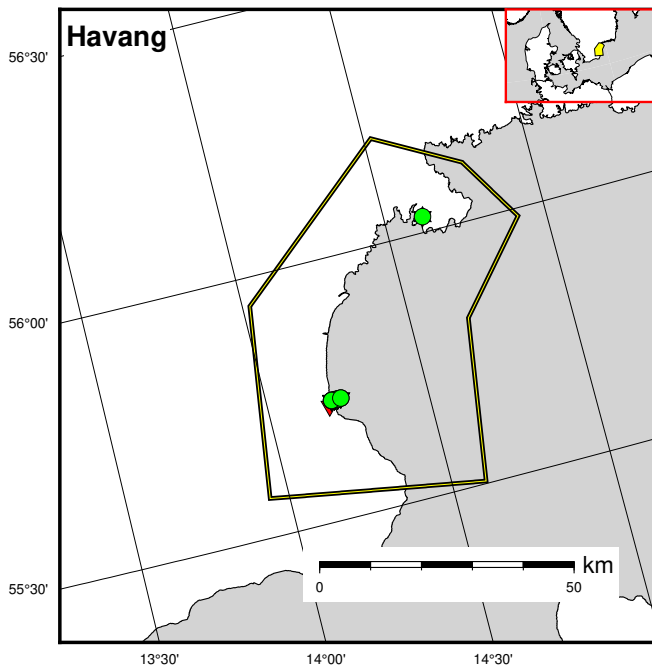


Figure 75: Paleo-sea level and comparison of six models for subregion Baltic Sea, location Sund.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point Reference ice model: 72_73_74_75
Reference Earth Model: ehgr

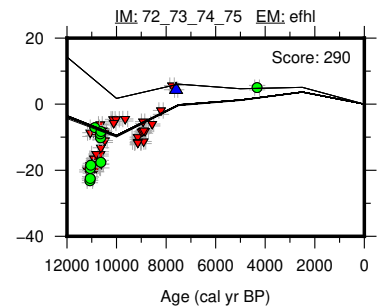
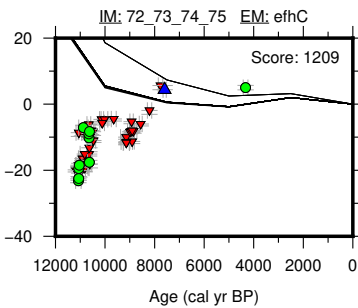
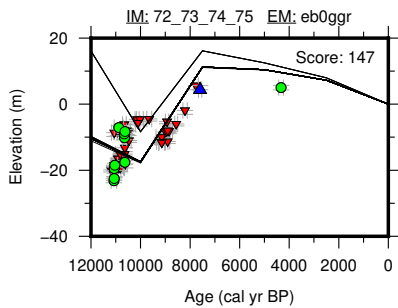
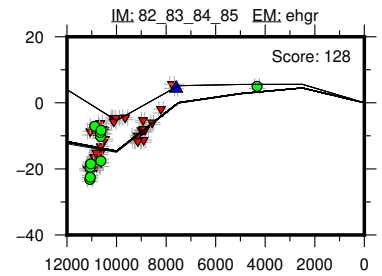
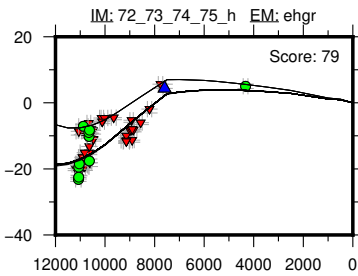
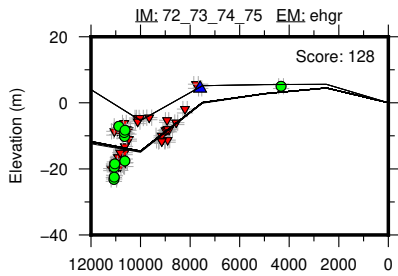


Figure 76: Paleo-sea level and comparison of six models for subregion Baltic Sea, location Havang.

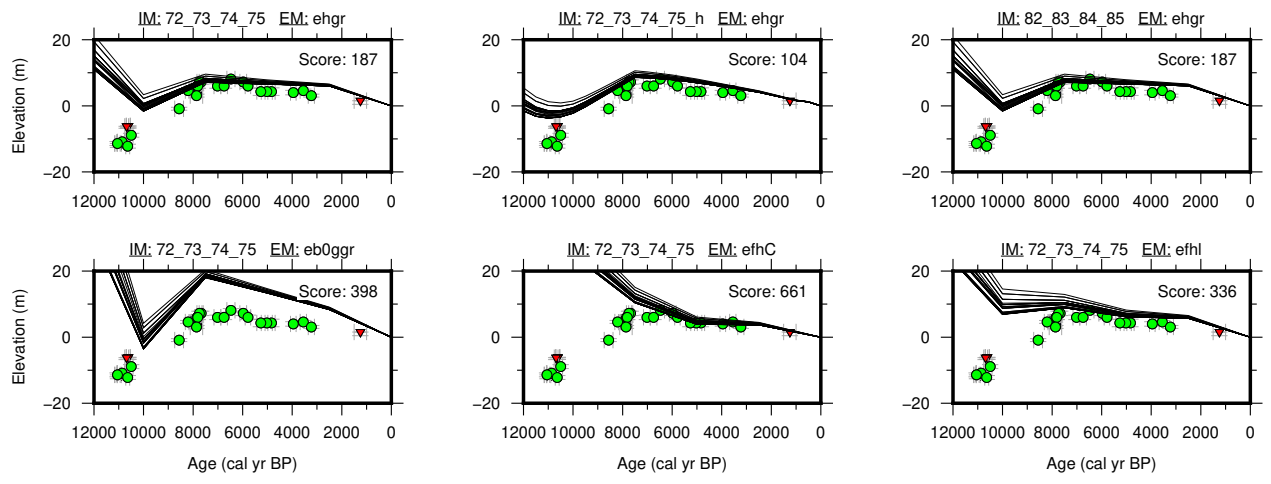
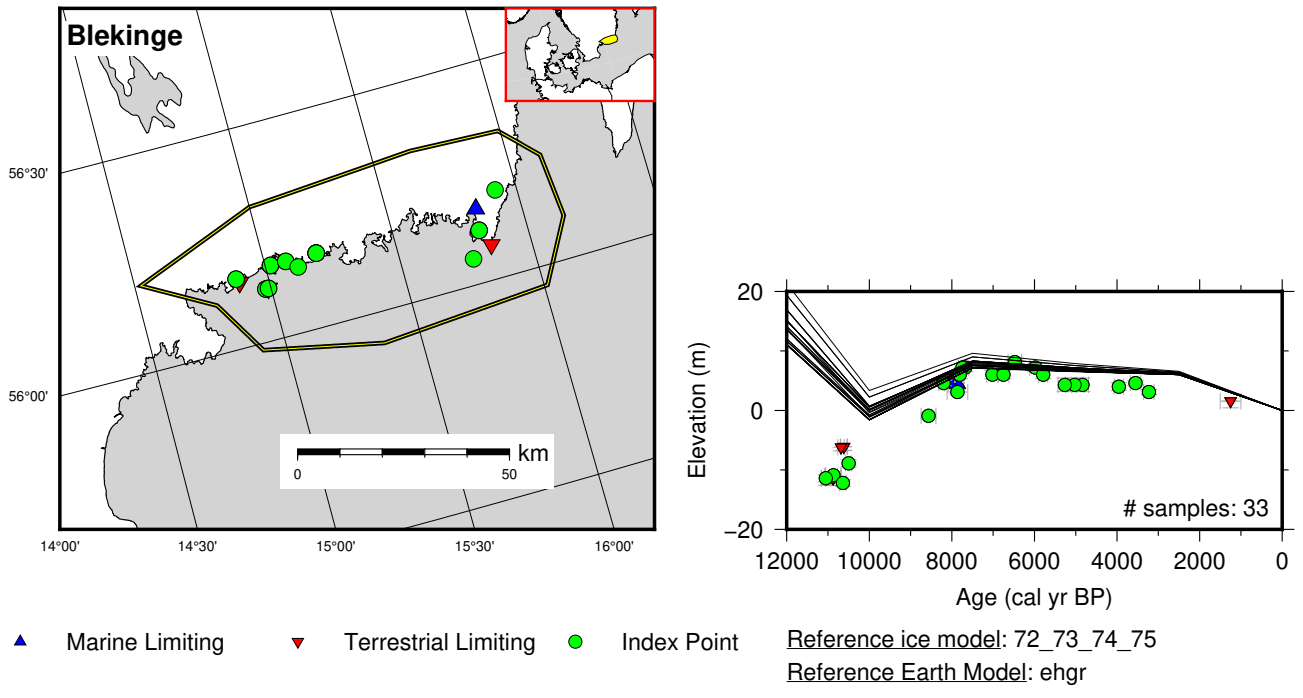
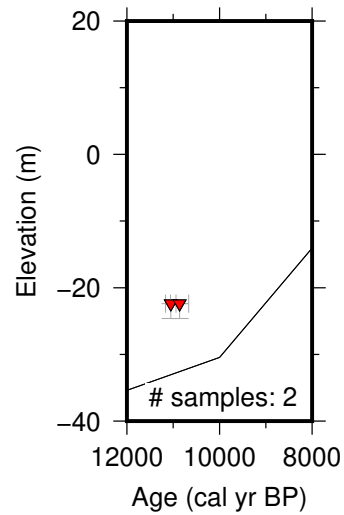
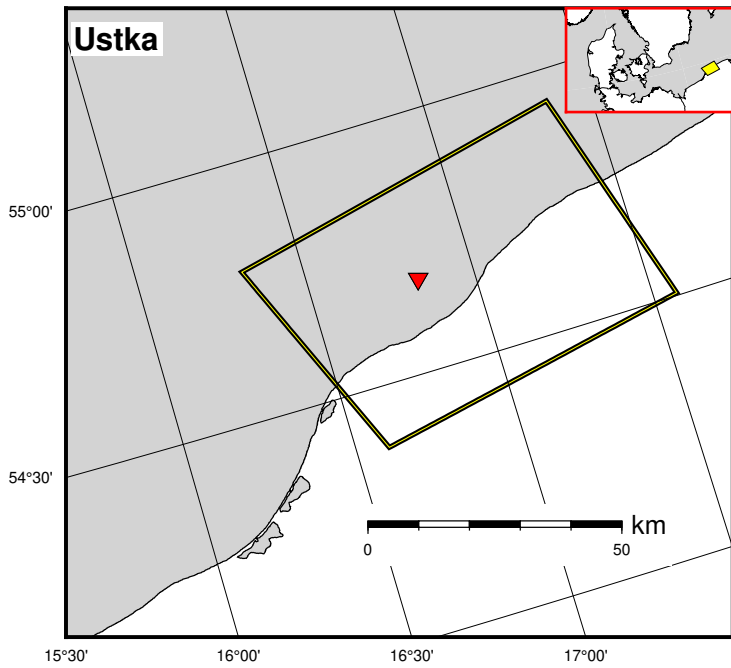


Figure 77: Paleo-sea level and comparison of six models for subregion Baltic Sea, location Blekinge.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point

Reference ice model: 72_73_74_75
Reference Earth Model: ehgr

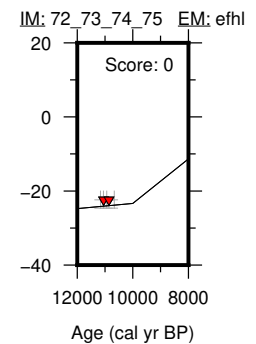
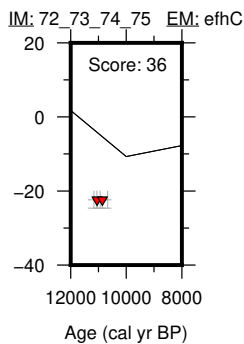
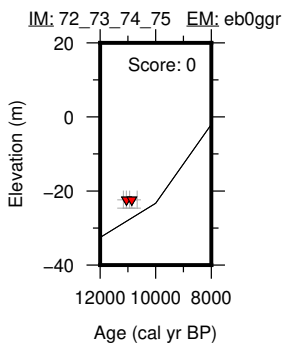
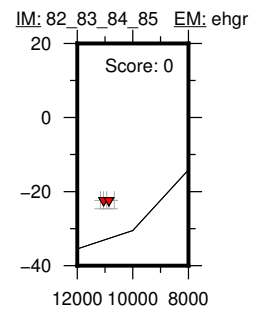
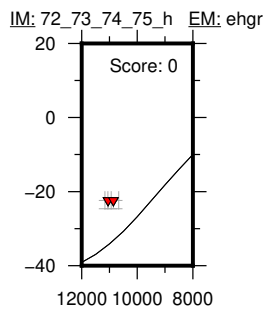
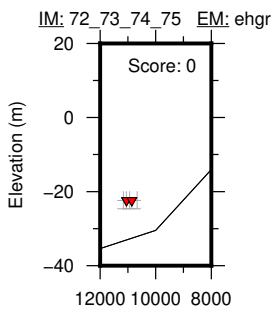


Figure 78: Paleo-sea level and comparison of six models for subregion Baltic Sea, location Ustka.

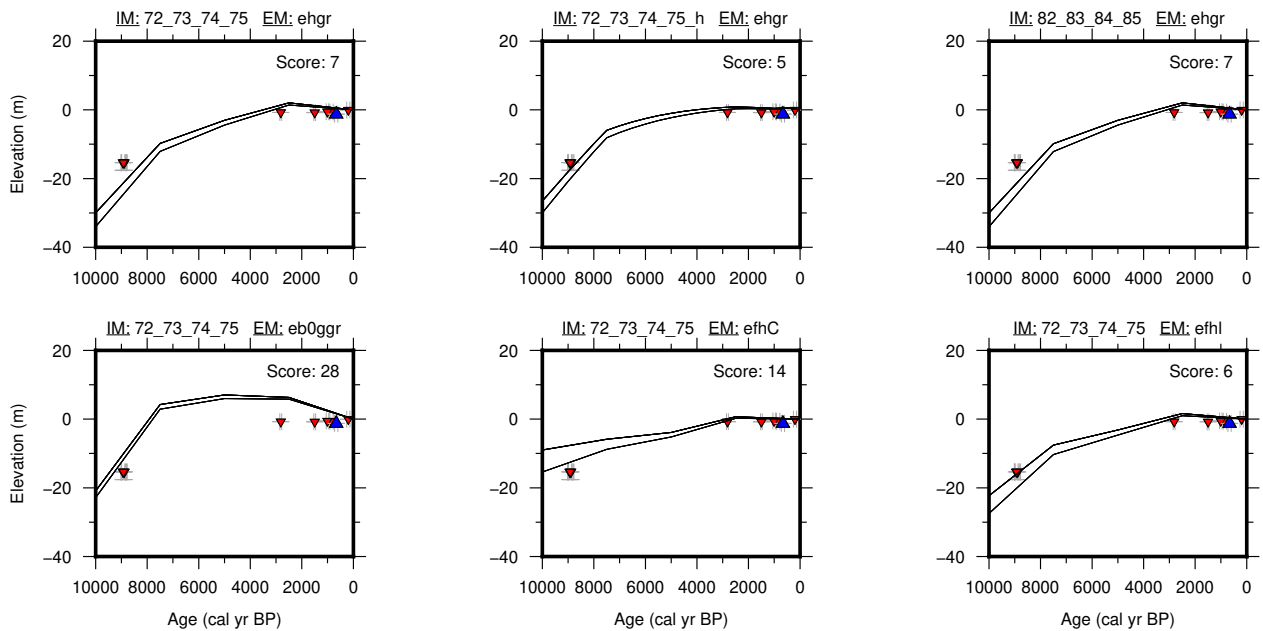
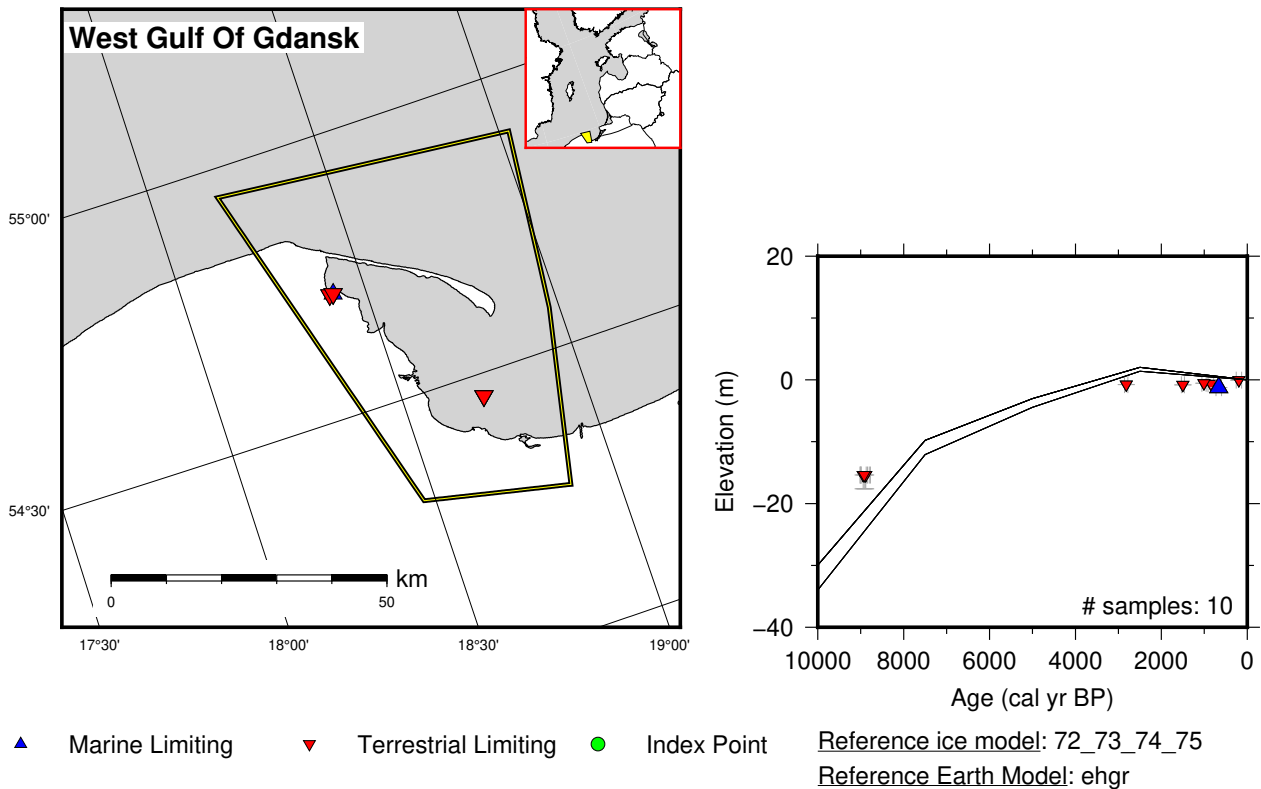
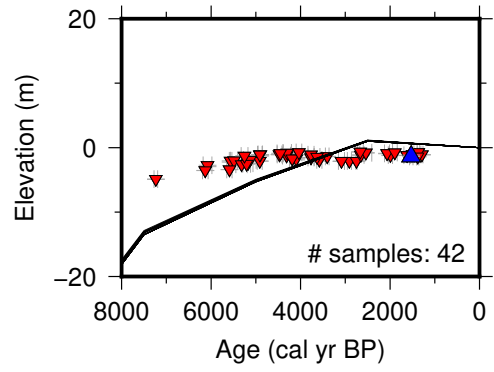
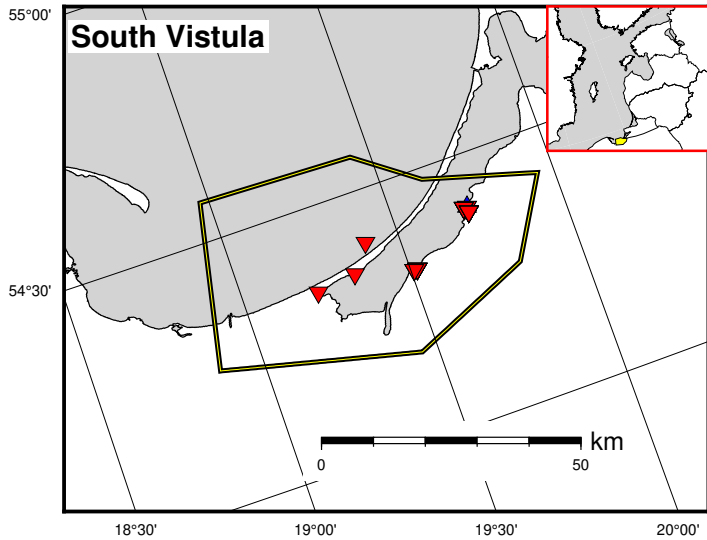


Figure 79: Paleo-sea level and comparison of six models for subregion Baltic Sea, location West Gulf Of Gdansk.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point Reference ice model: 72_73_74_75
Reference Earth Model: ehgr

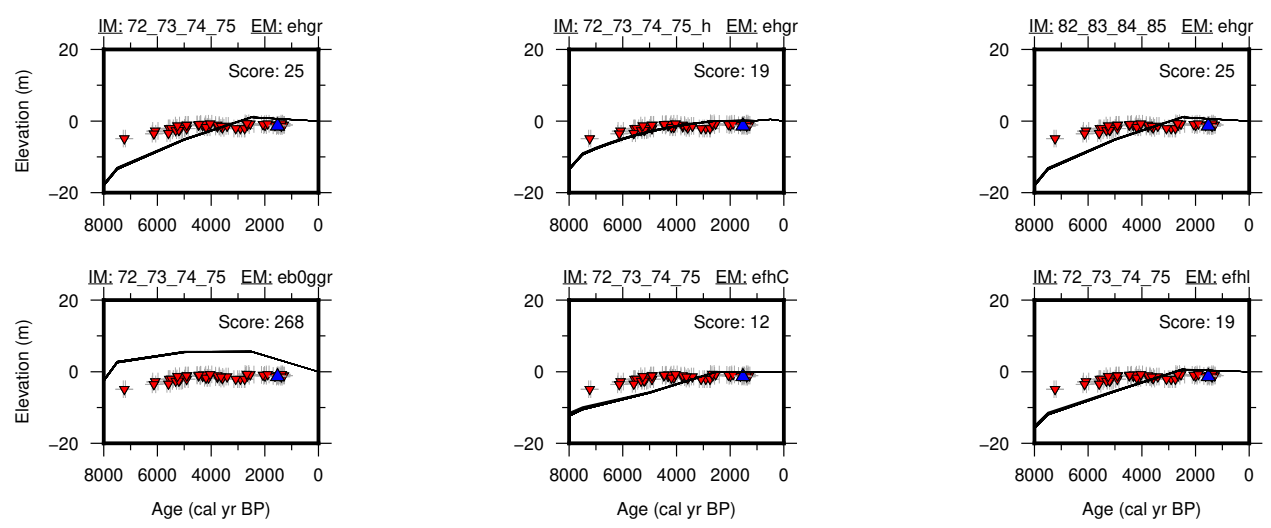
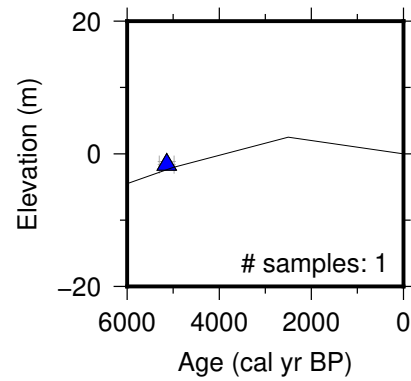
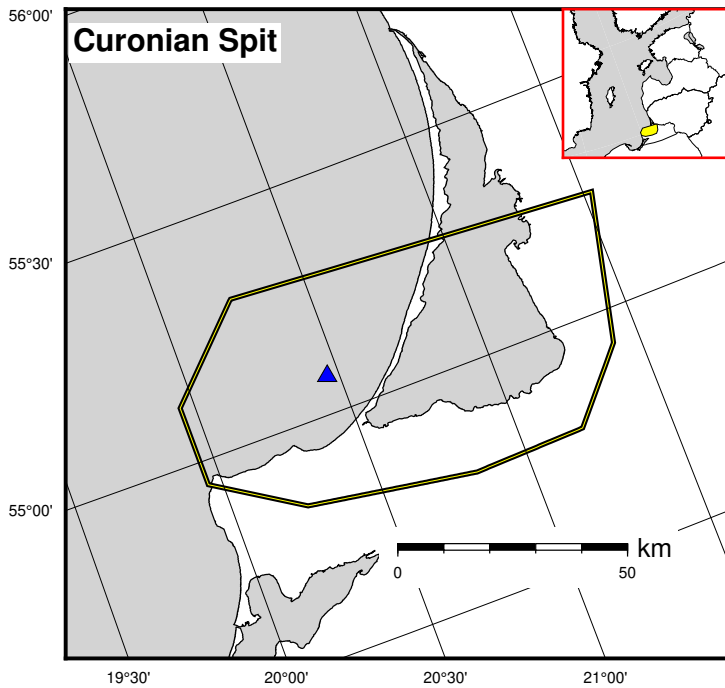


Figure 80: Paleo-sea level and comparison of six models for subregion Baltic Sea, location South Vistula.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point

Reference ice model: 72_73_74_75
Reference Earth Model: ehgr

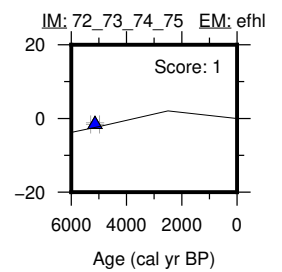
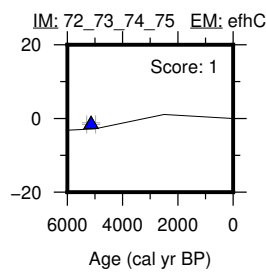
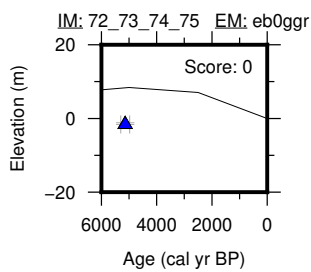
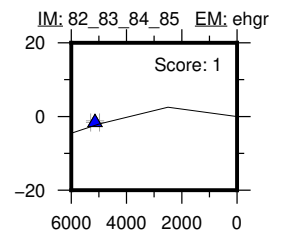
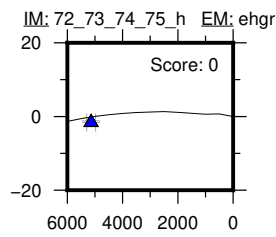
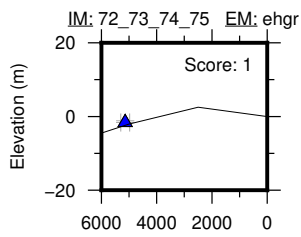
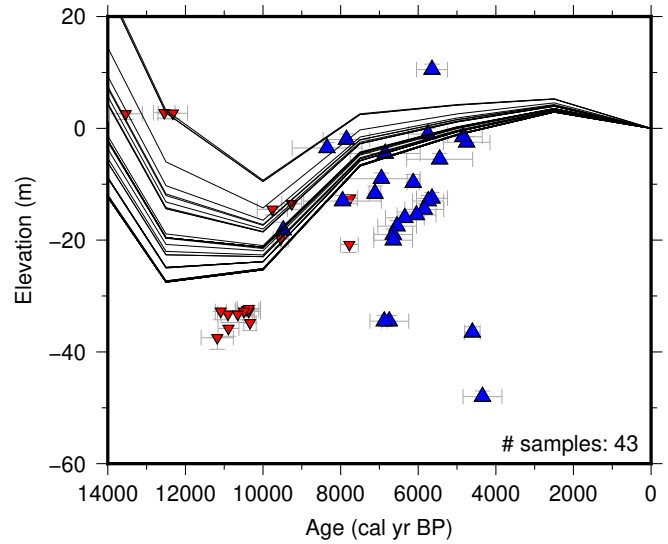
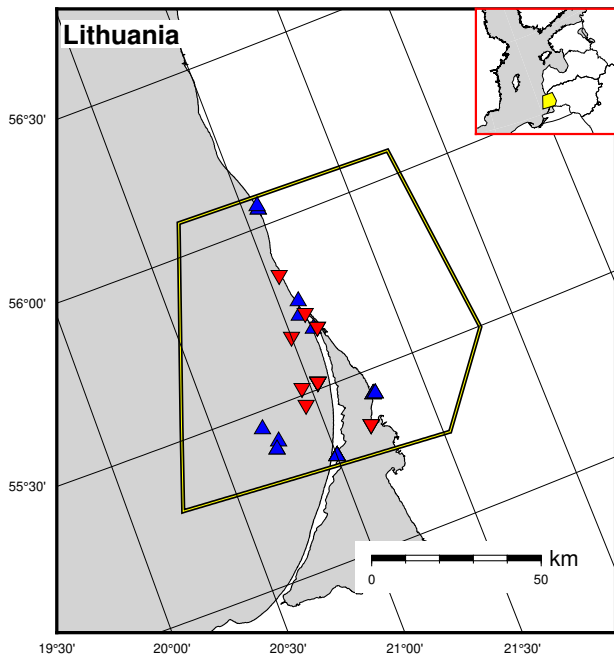


Figure 81: Paleo-sea level and comparison of six models for subregion Baltic Sea, location Curonian Spit.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point Reference ice model: 72_73_74_75
 Reference Earth Model: ehgr

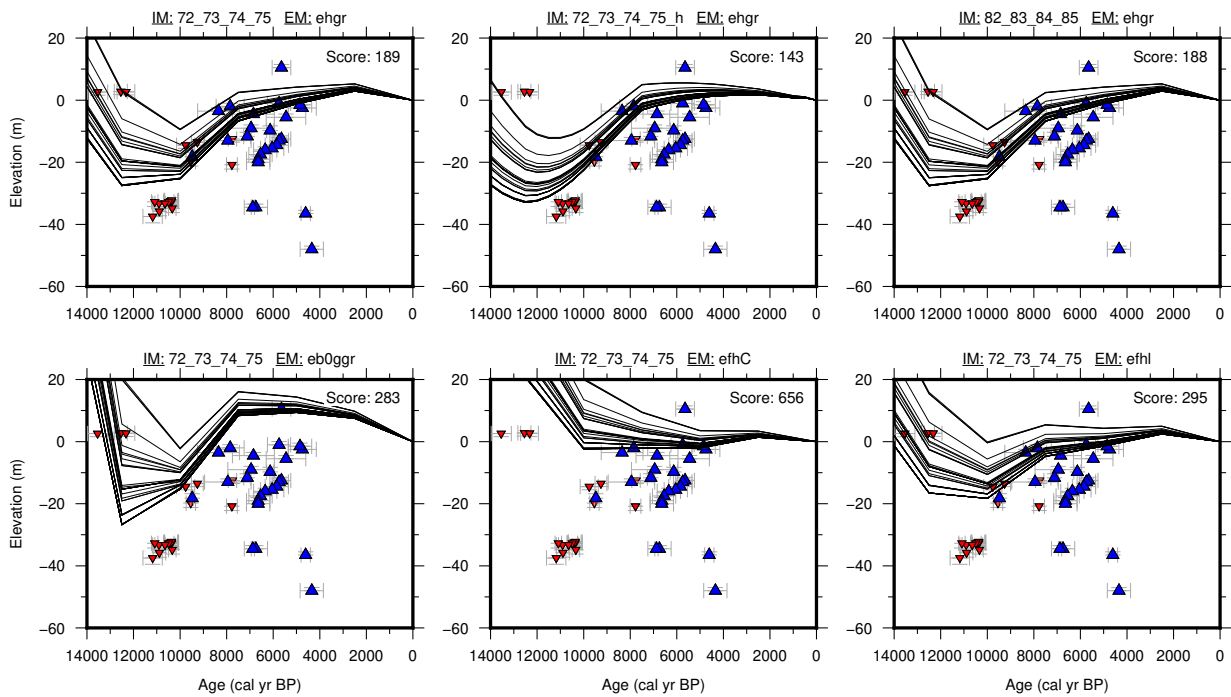
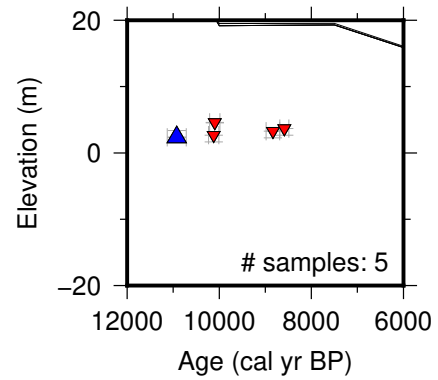
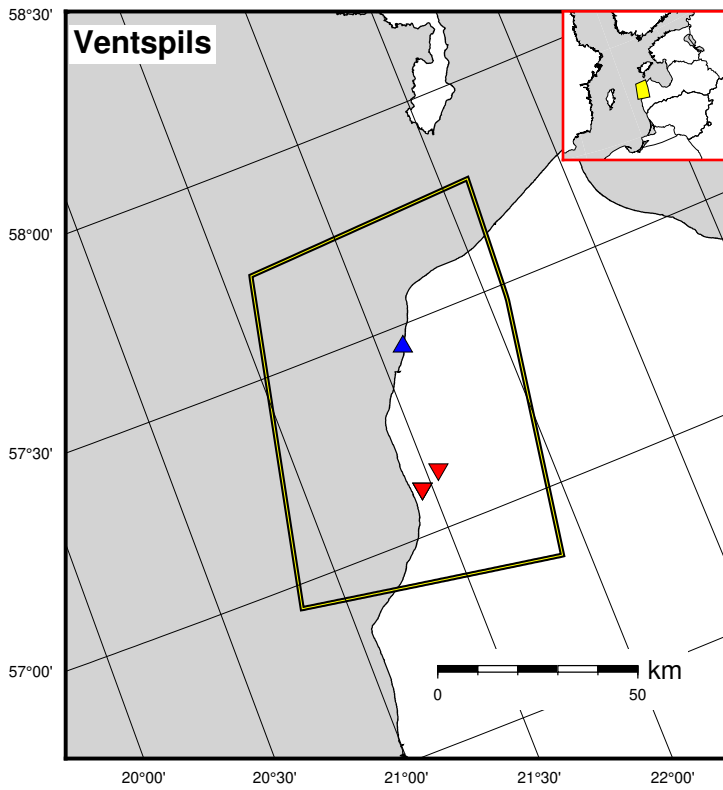


Figure 82: Paleo-sea level and comparison of six models for subregion Baltic Sea, location Lithuania.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point

Reference ice model: 72_73_74_75
Reference Earth Model: ehgr

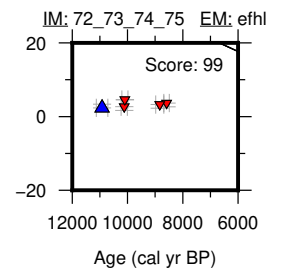
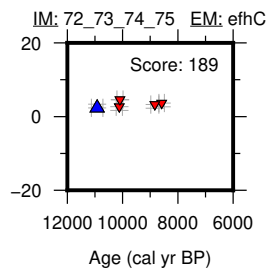
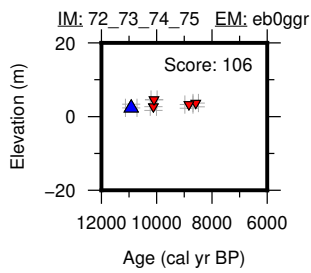
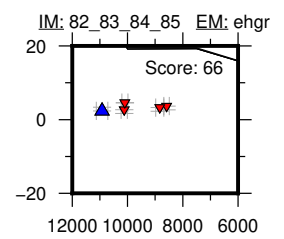
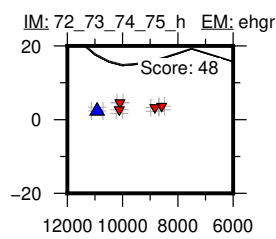
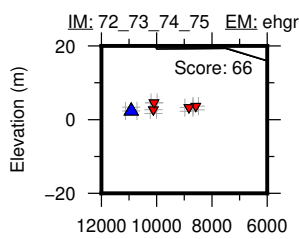
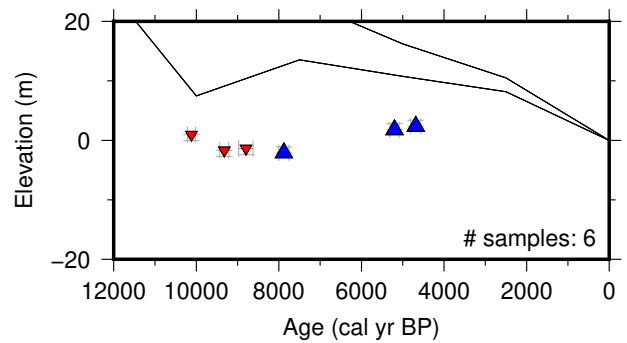
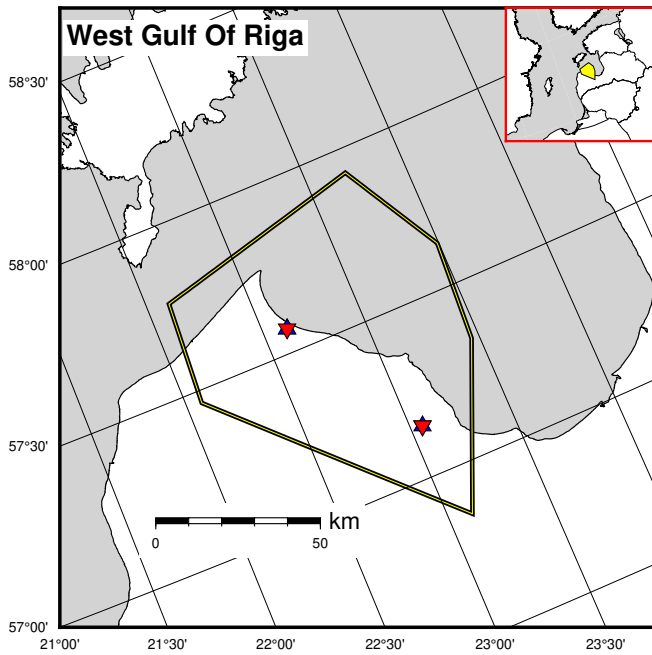


Figure 83: Paleo-sea level and comparison of six models for subregion Baltic Sea, location Ventspils.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point Reference ice model: 72_73_74_75
Reference Earth Model: ehgr

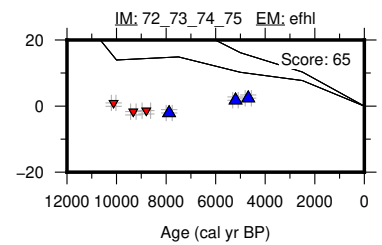
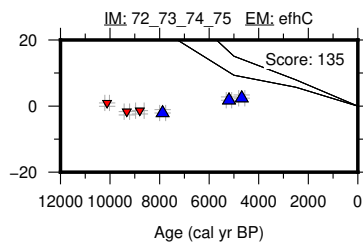
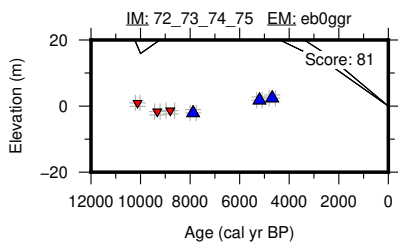
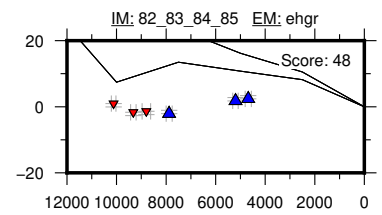
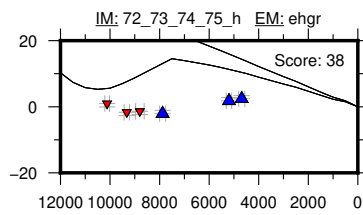
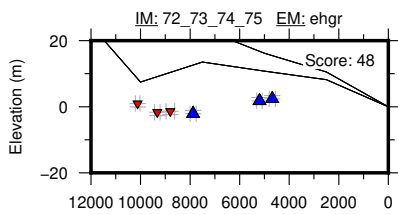


Figure 84: Paleo-sea level and comparison of six models for subregion Baltic Sea, location West Gulf Of Riga.

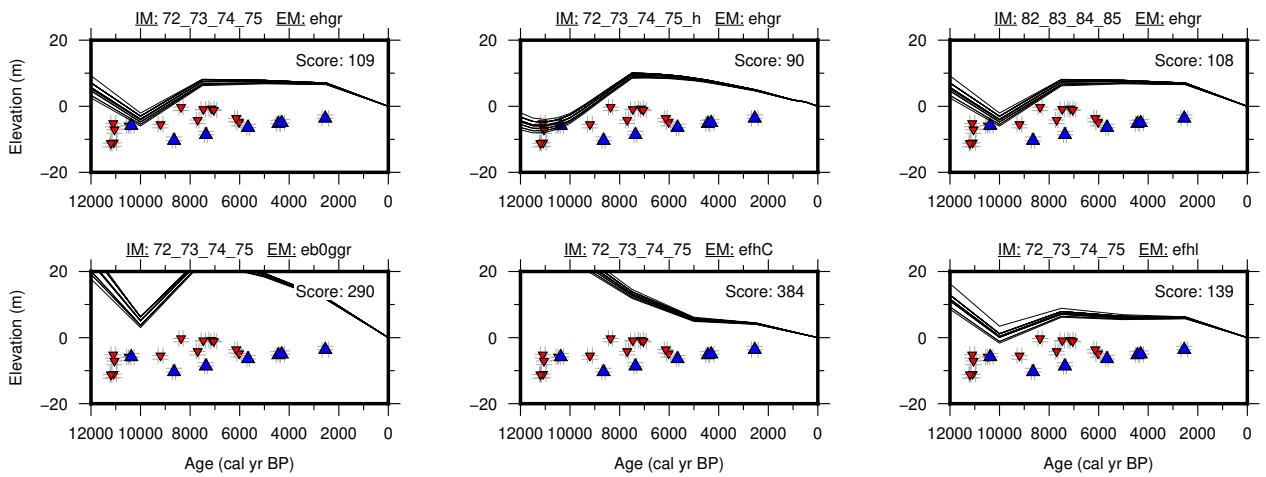
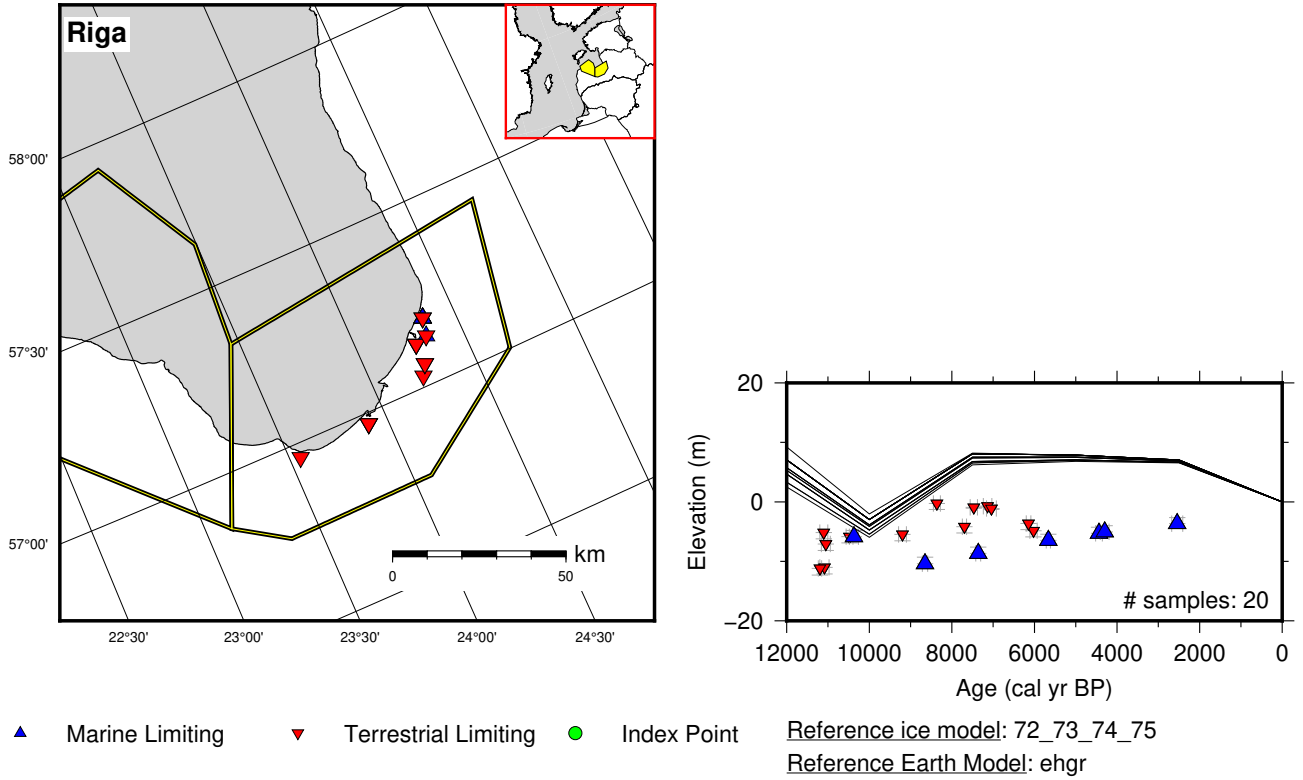
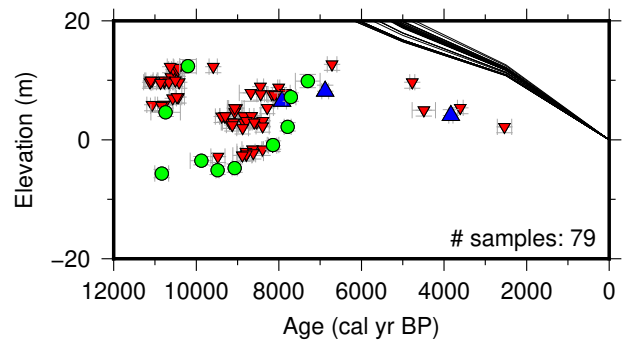
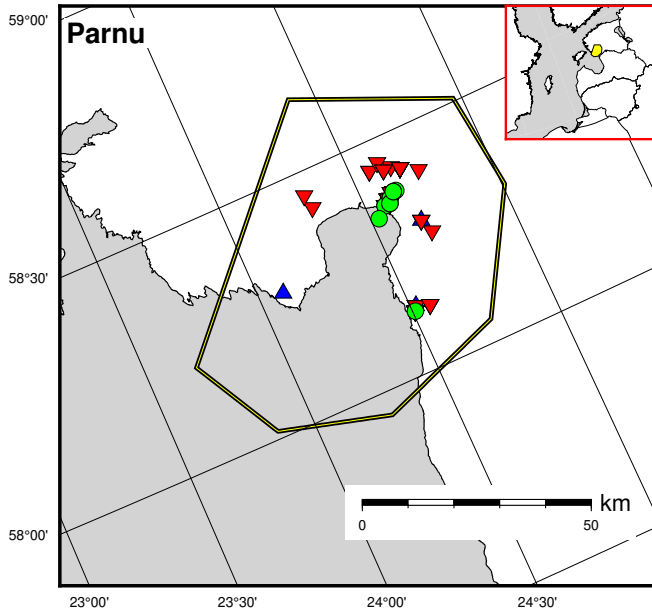


Figure 85: Paleo-sea level and comparison of six models for subregion Baltic Sea, location Riga.



▲ Marine Limiting
 ▼ Terrestrial Limiting
 ● Index Point
 Reference ice model: 72_73_74_75
 Reference Earth Model: ehgr

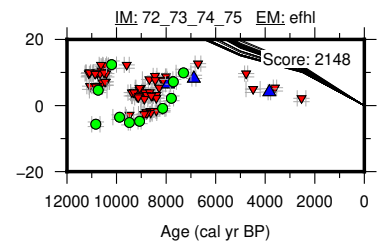
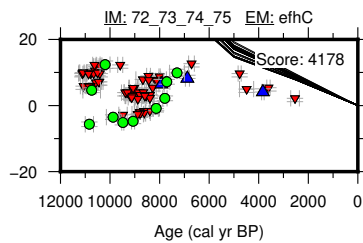
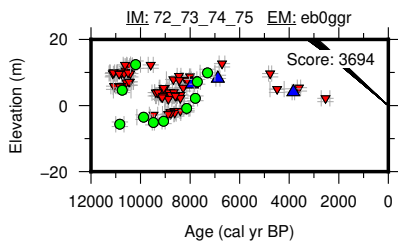
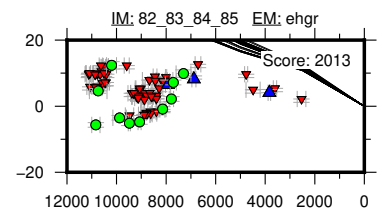
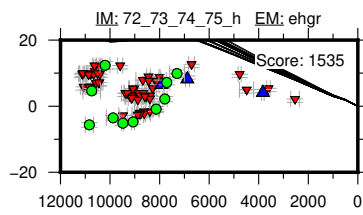
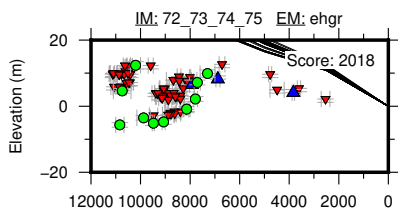
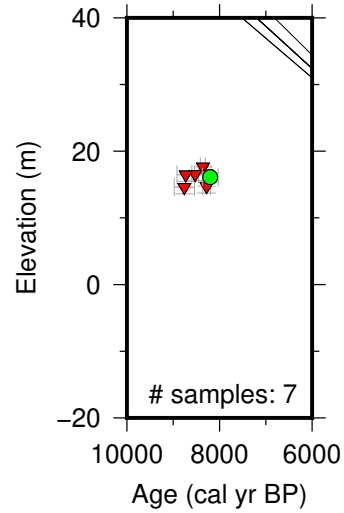
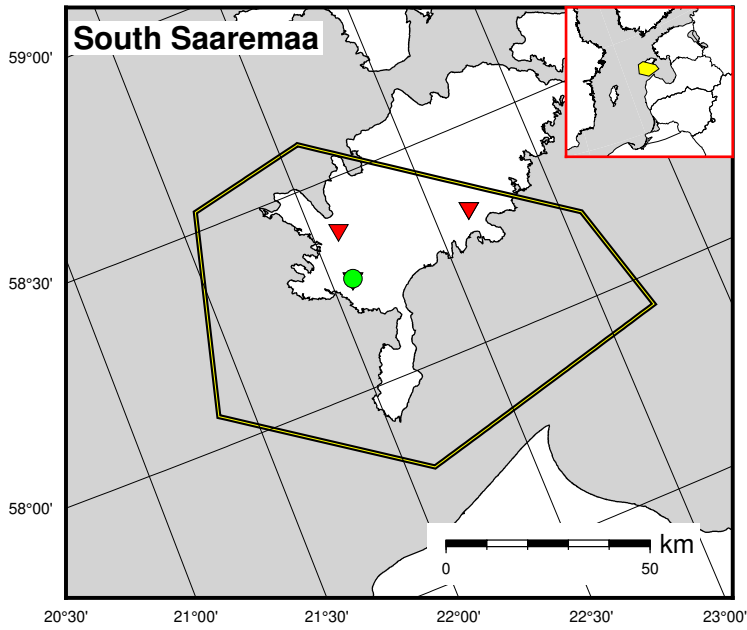


Figure 86: Paleo-sea level and comparison of six models for subregion Baltic Sea, location Parnu.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point

Reference ice model: 72_73_74_75
Reference Earth Model: ehgr

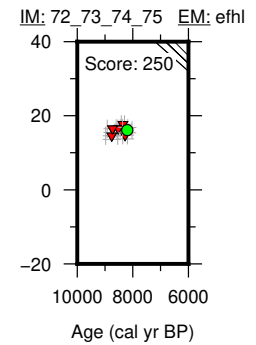
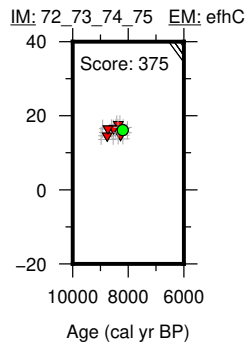
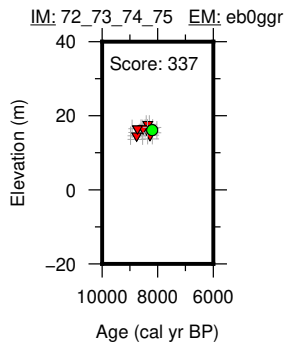
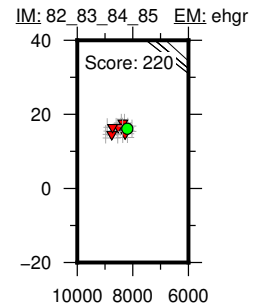
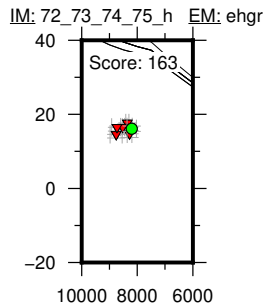
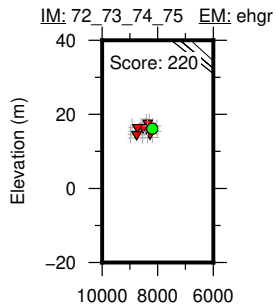


Figure 87: Paleo-sea level and comparison of six models for subregion Baltic Sea, location South Saaremaa.

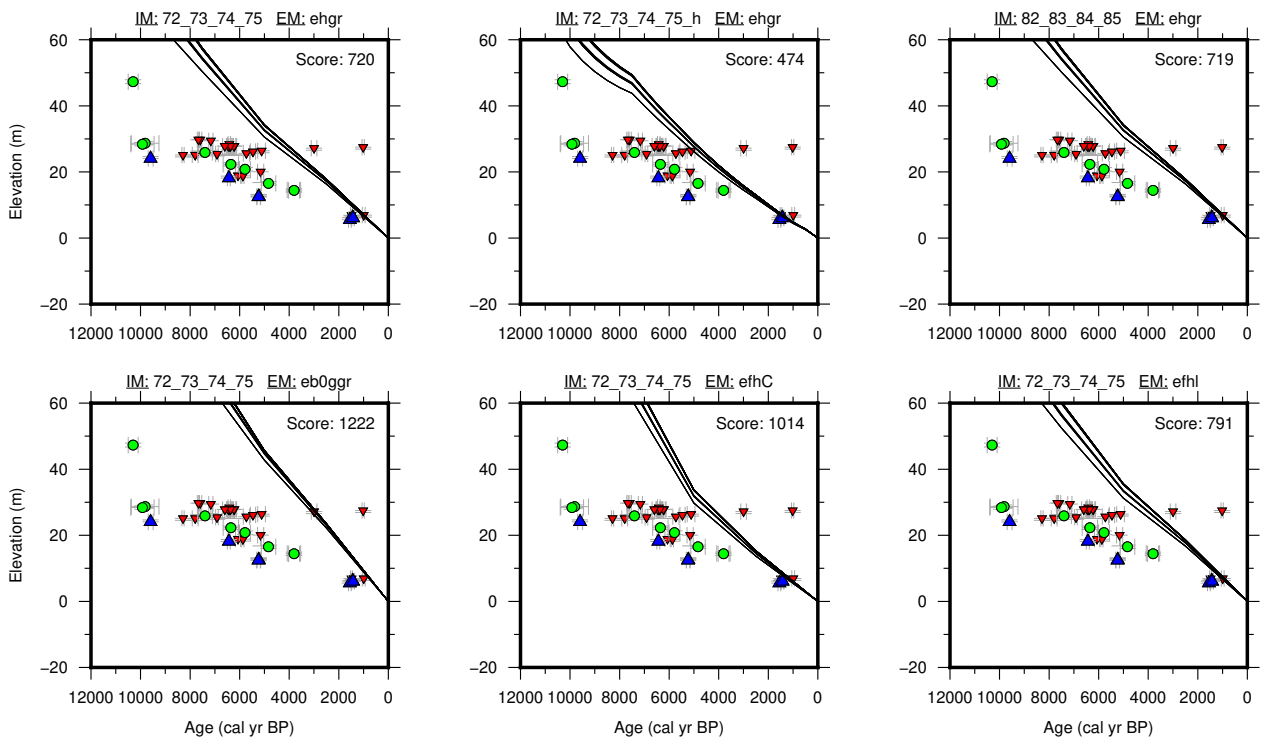
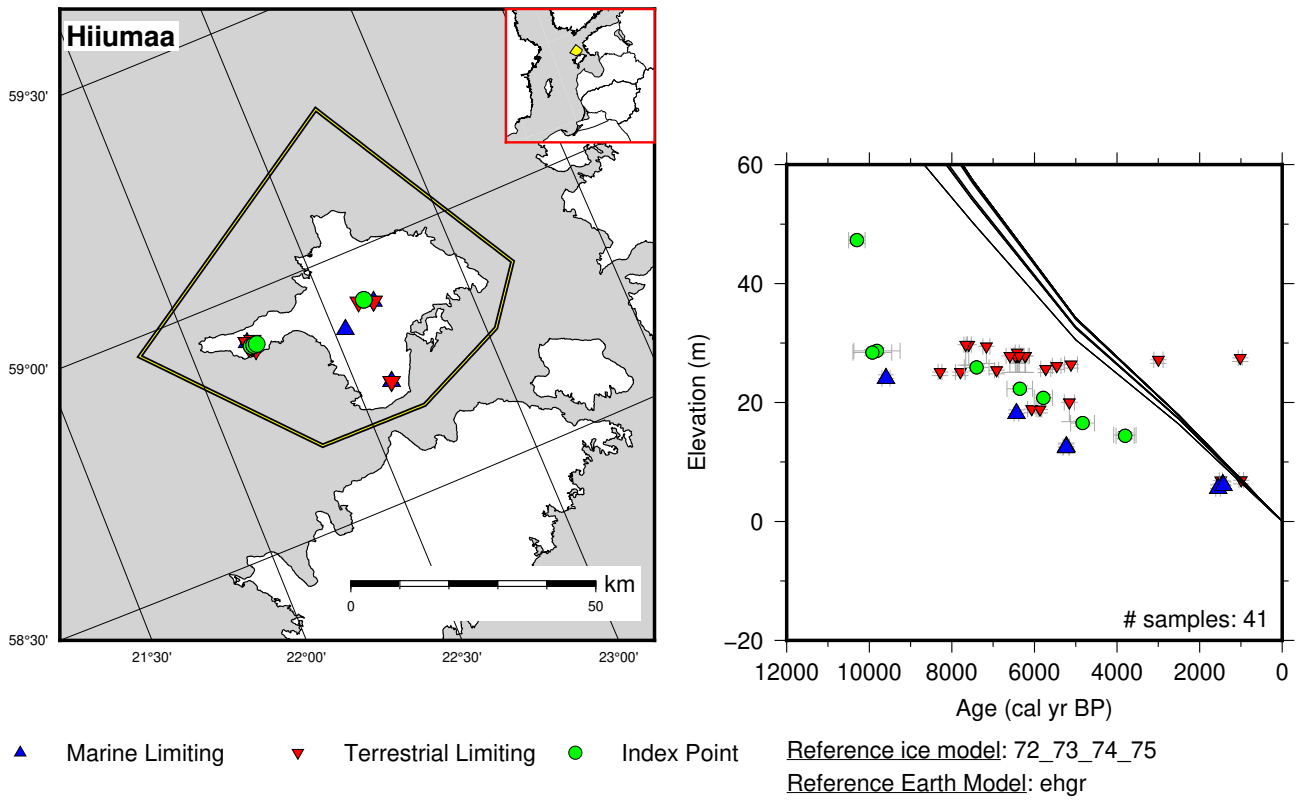
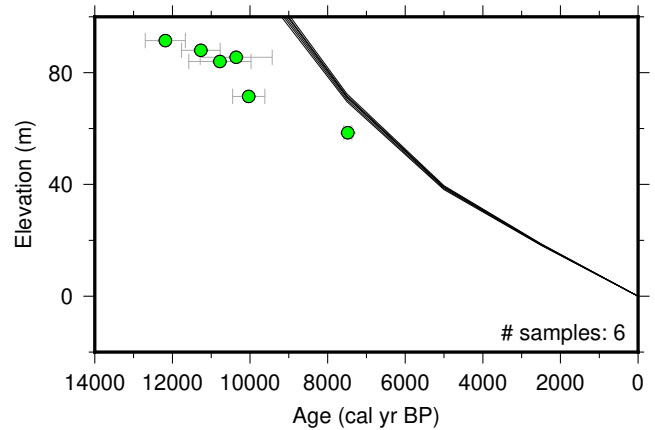
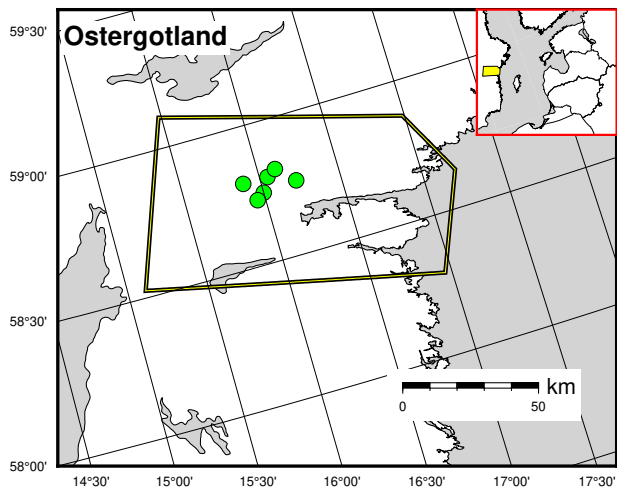


Figure 88: Paleo-sea level and comparison of six models for subregion Baltic Sea, location Hiiumaa.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point

Reference ice model: 72_73_74_75

Reference Earth Model: ehgr

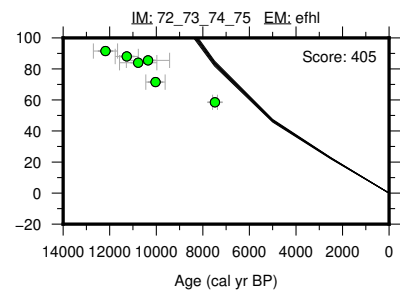
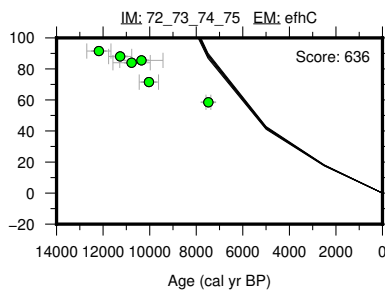
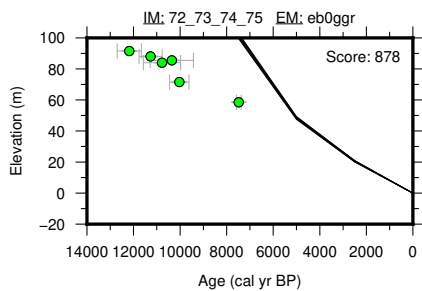
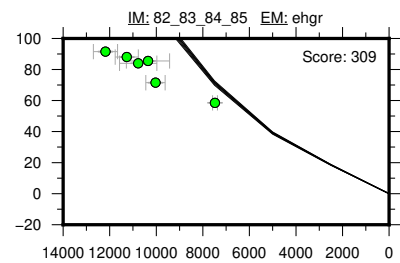
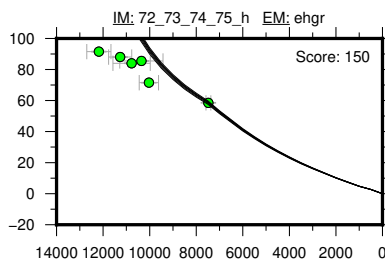
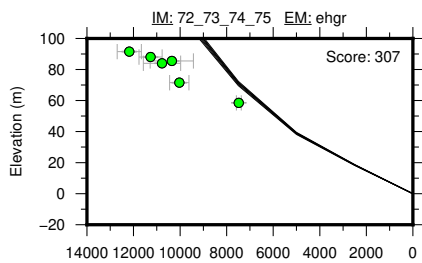
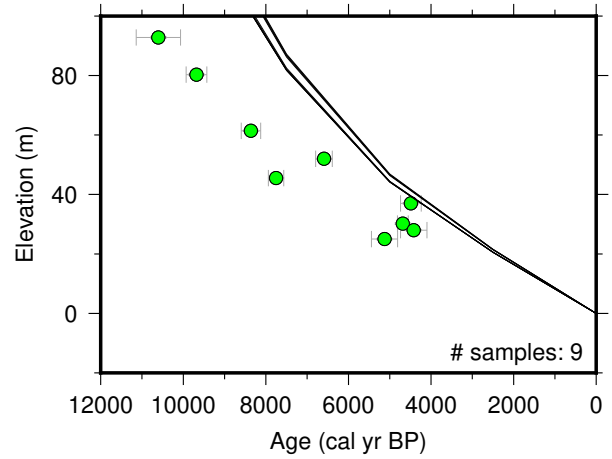
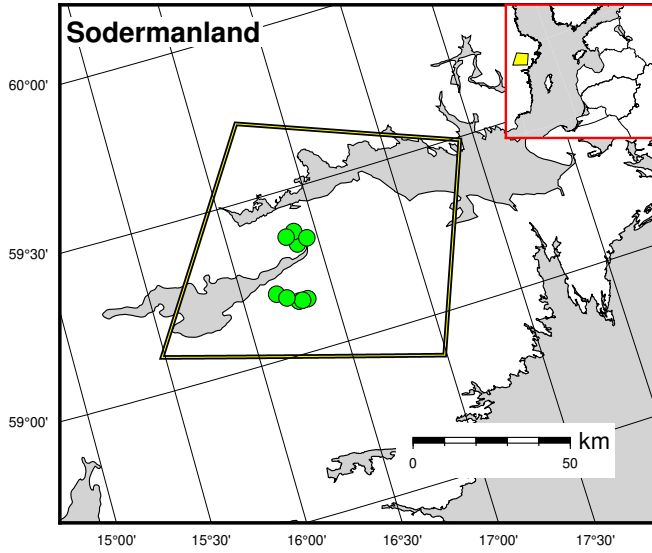


Figure 89: Paleo-sea level and comparison of six models for subregion Baltic Sea, location Ostergotland.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point

Reference ice model: 72_73_74_75
Reference Earth Model: ehgr

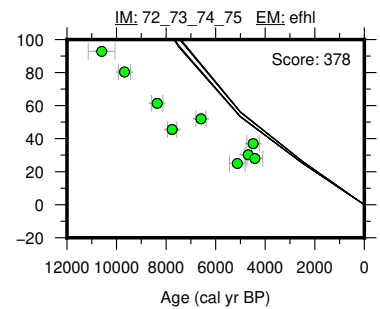
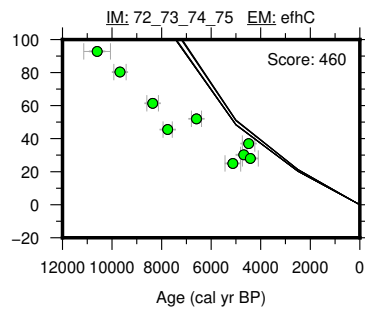
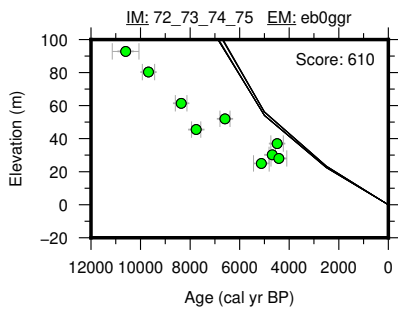
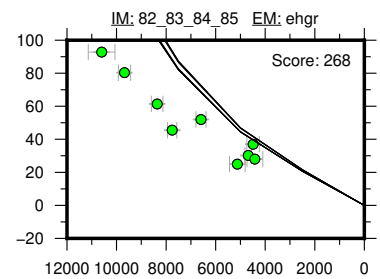
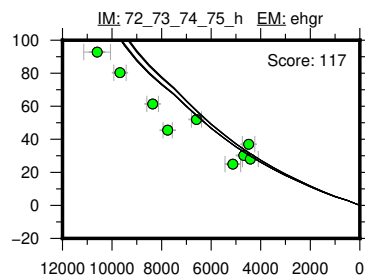
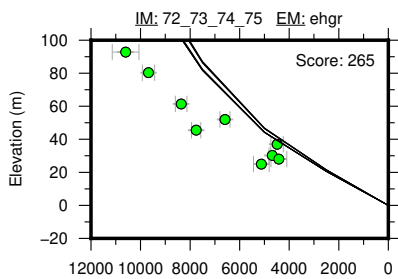
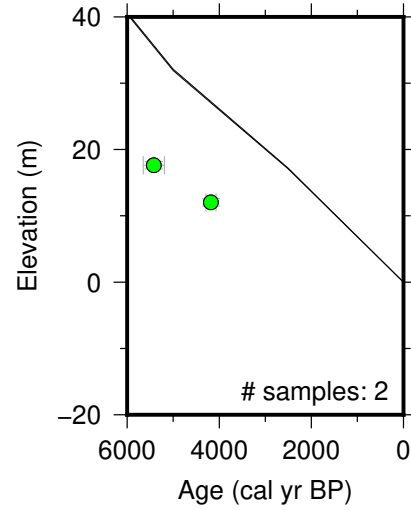
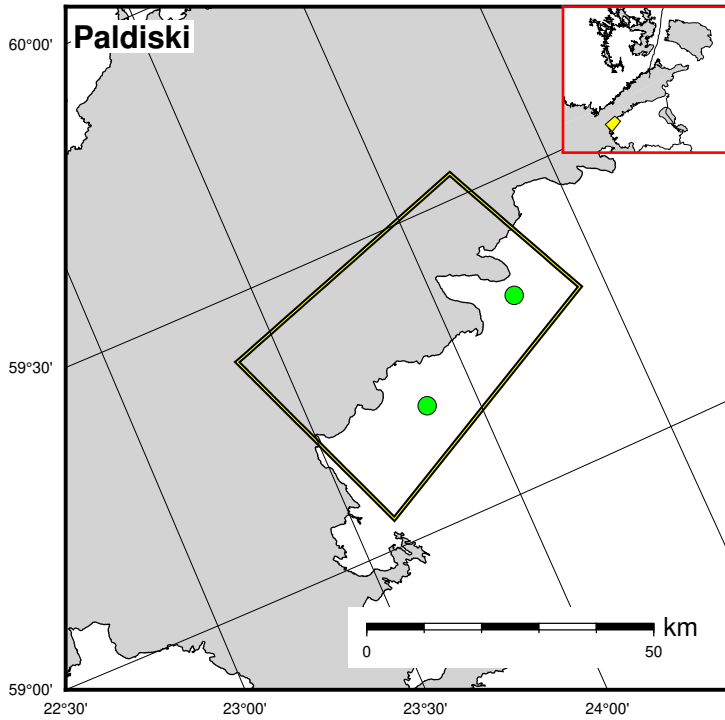


Figure 90: Paleo-sea level and comparison of six models for subregion Baltic Sea, location Sodermanland.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point

Reference ice model: 72_73_74_75
Reference Earth Model: ehgr

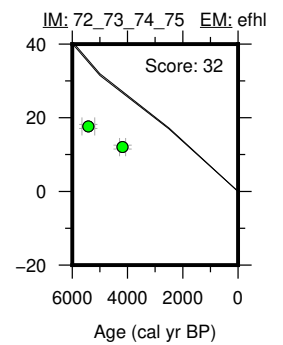
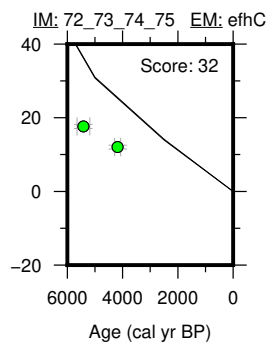
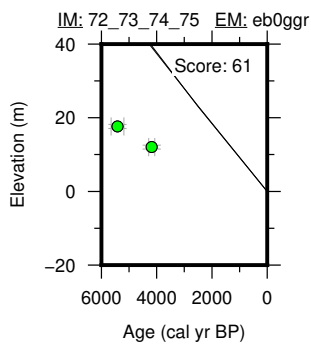
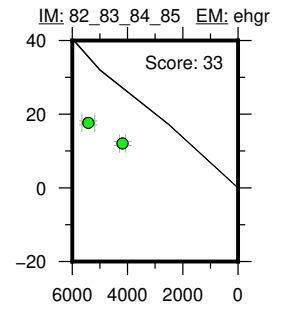
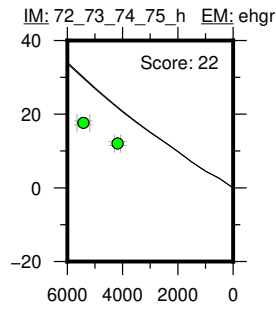
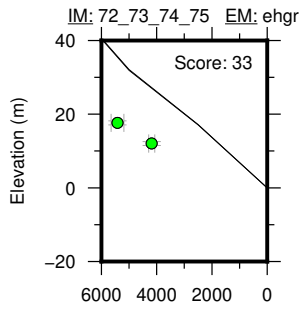


Figure 91: Paleo-sea level and comparison of six models for subregion Baltic Sea, location Paldiski.

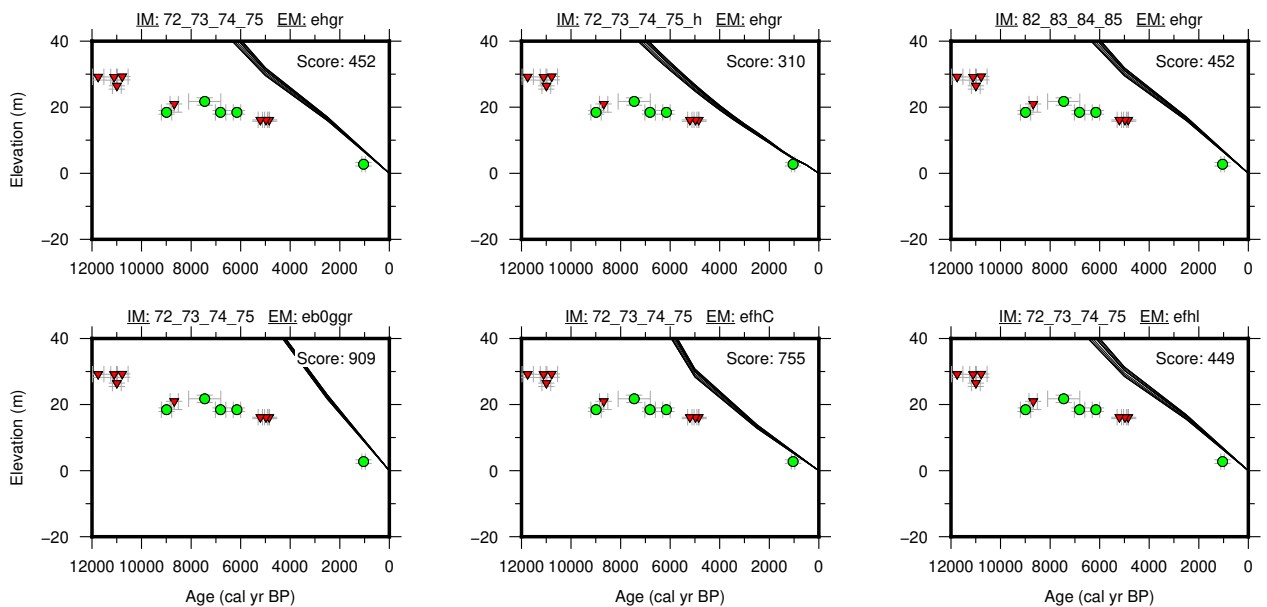
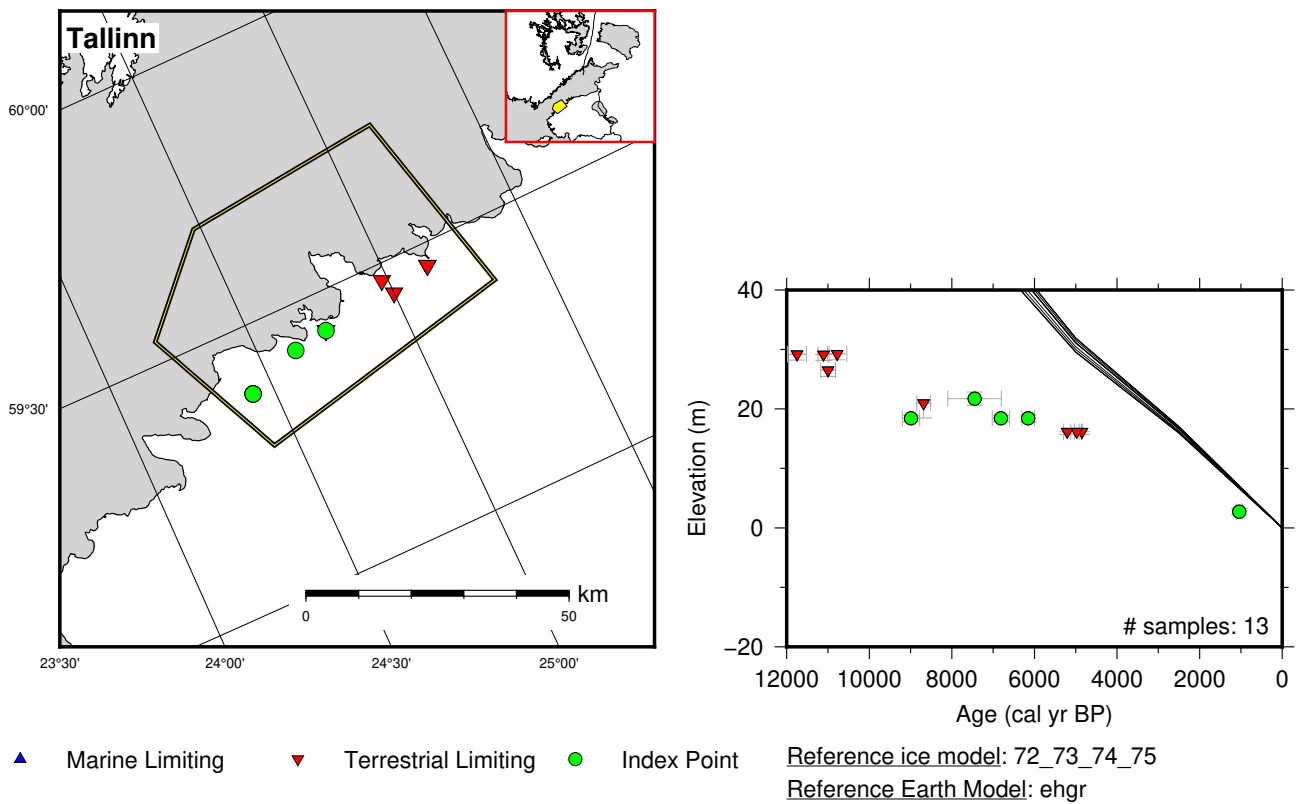


Figure 92: Paleo-sea level and comparison of six models for subregion Baltic Sea, location Tallinn.

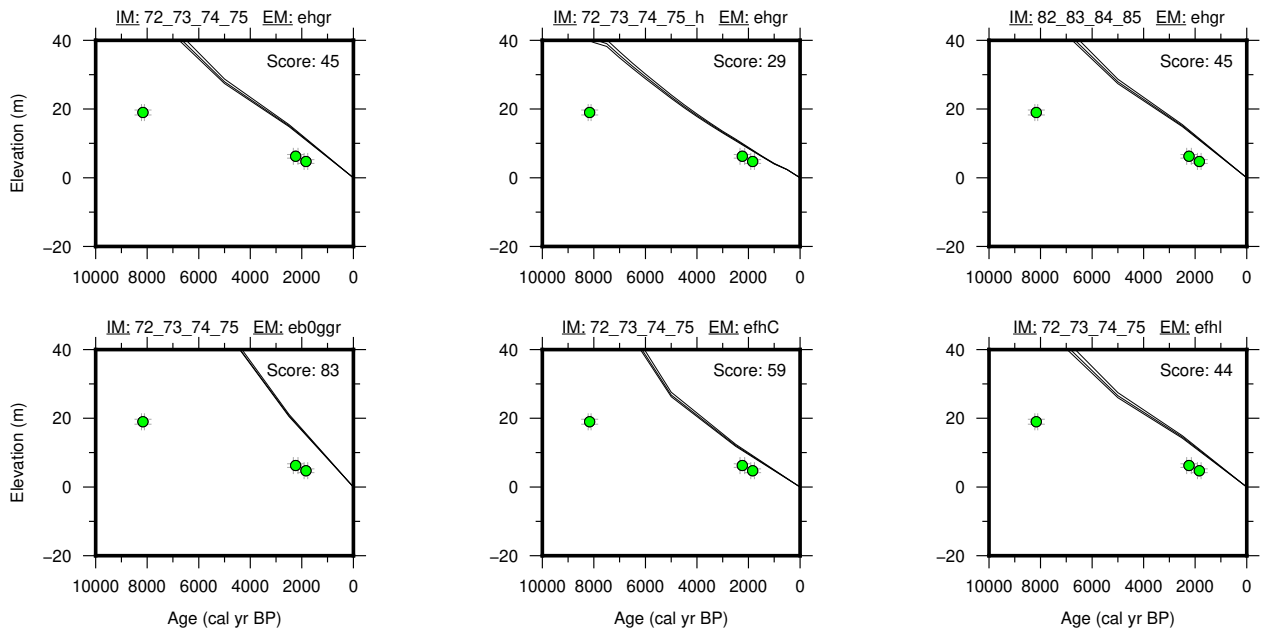
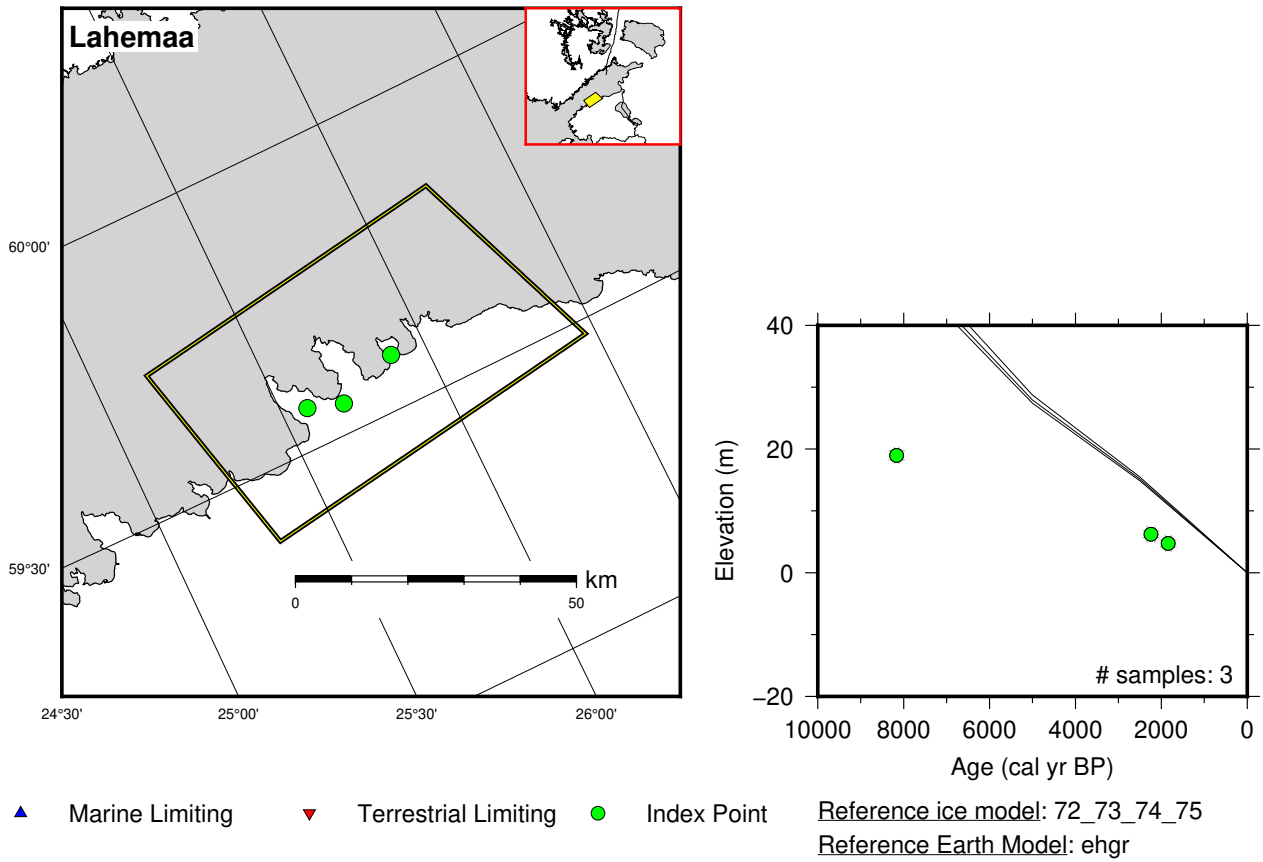


Figure 93: Paleo-sea level and comparison of six models for subregion Baltic Sea, location Lahemaa.

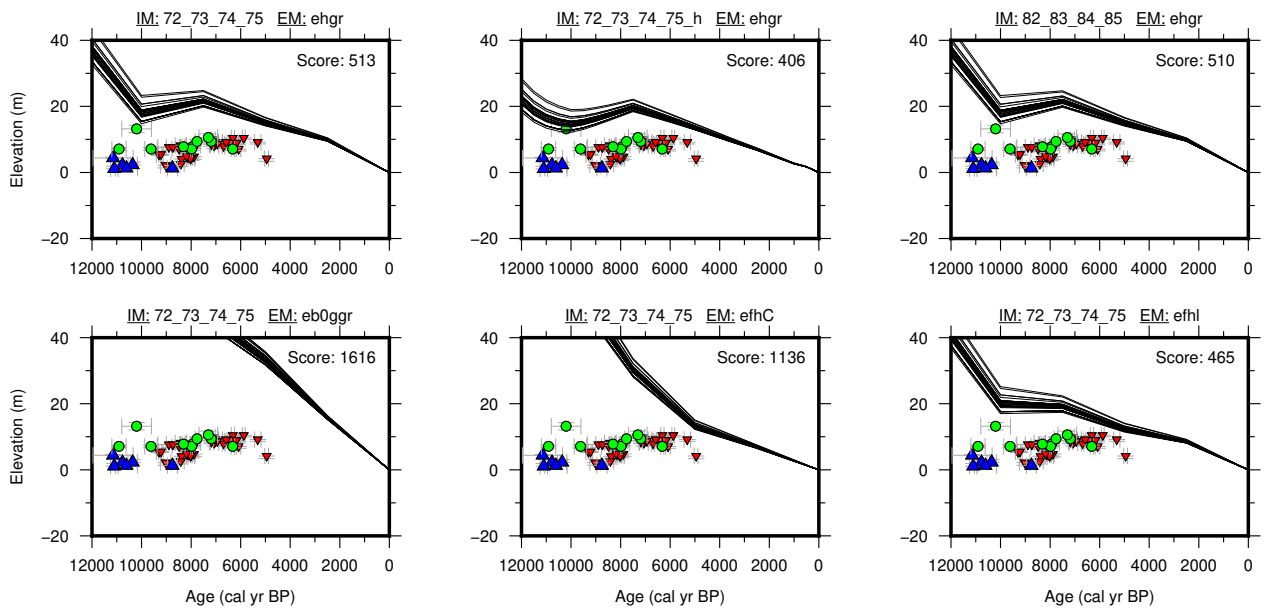
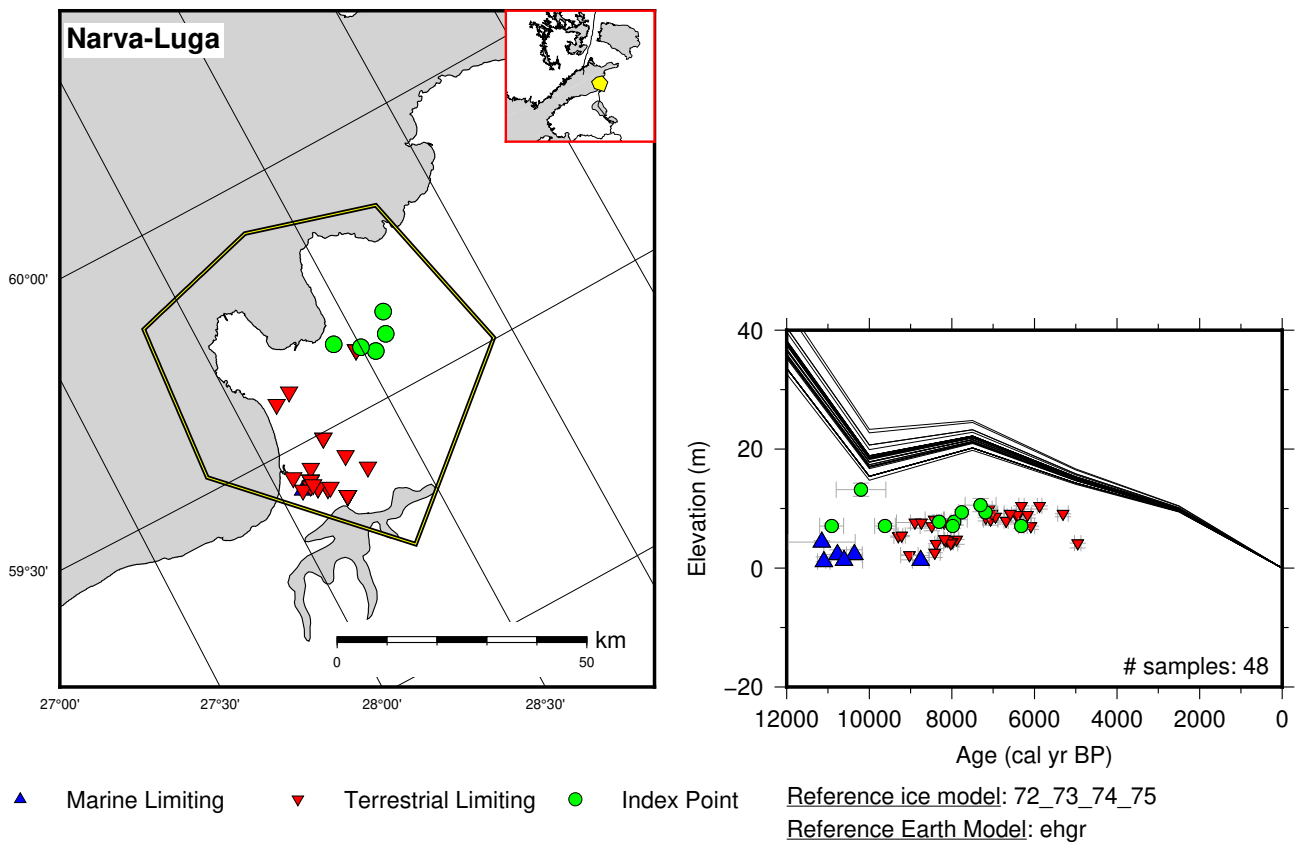
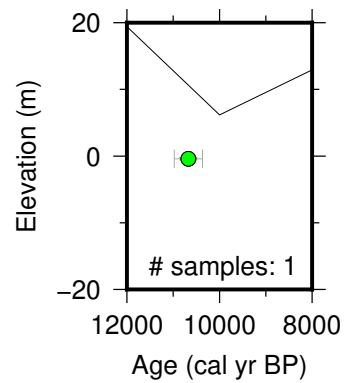
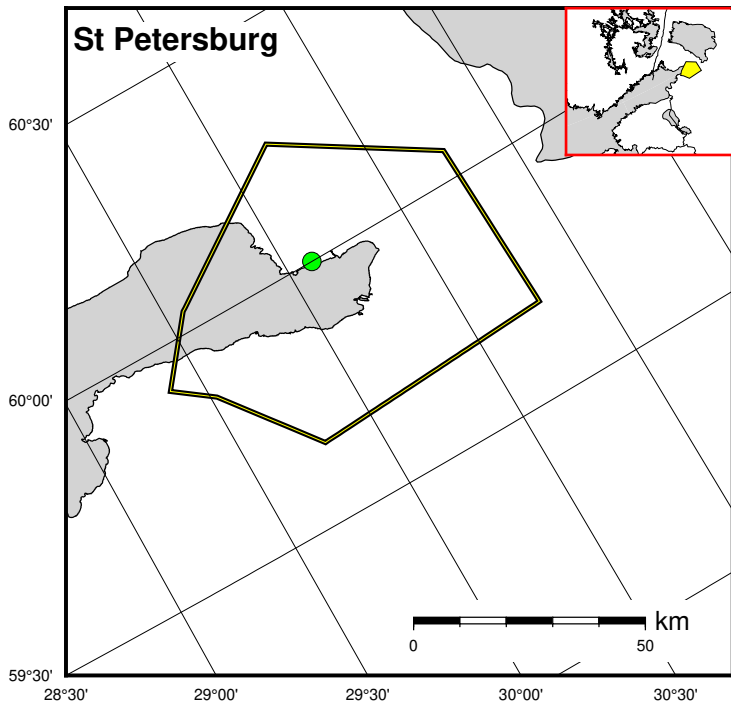


Figure 94: Paleo-sea level and comparison of six models for subregion Baltic Sea, location Narva-Luga.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point

Reference ice model: 72_73_74_75
Reference Earth Model: ehgr

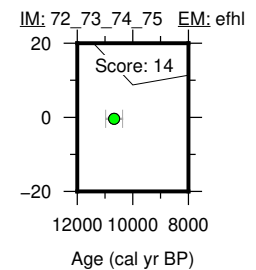
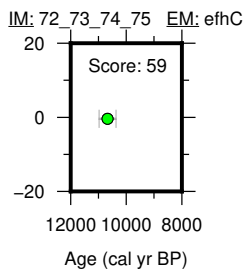
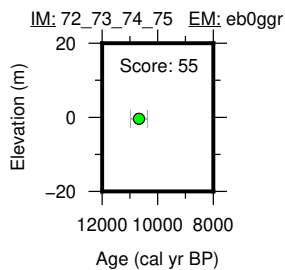
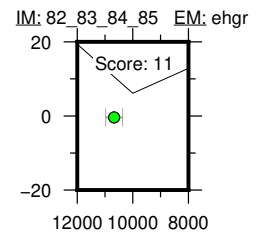
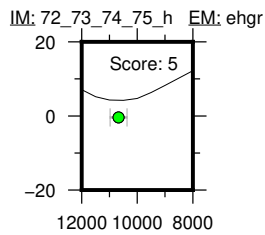
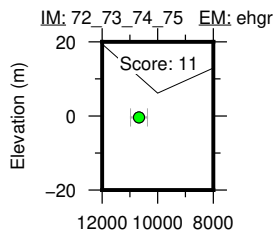


Figure 95: Paleo-sea level and comparison of six models for subregion Baltic Sea, location St Petersburg.

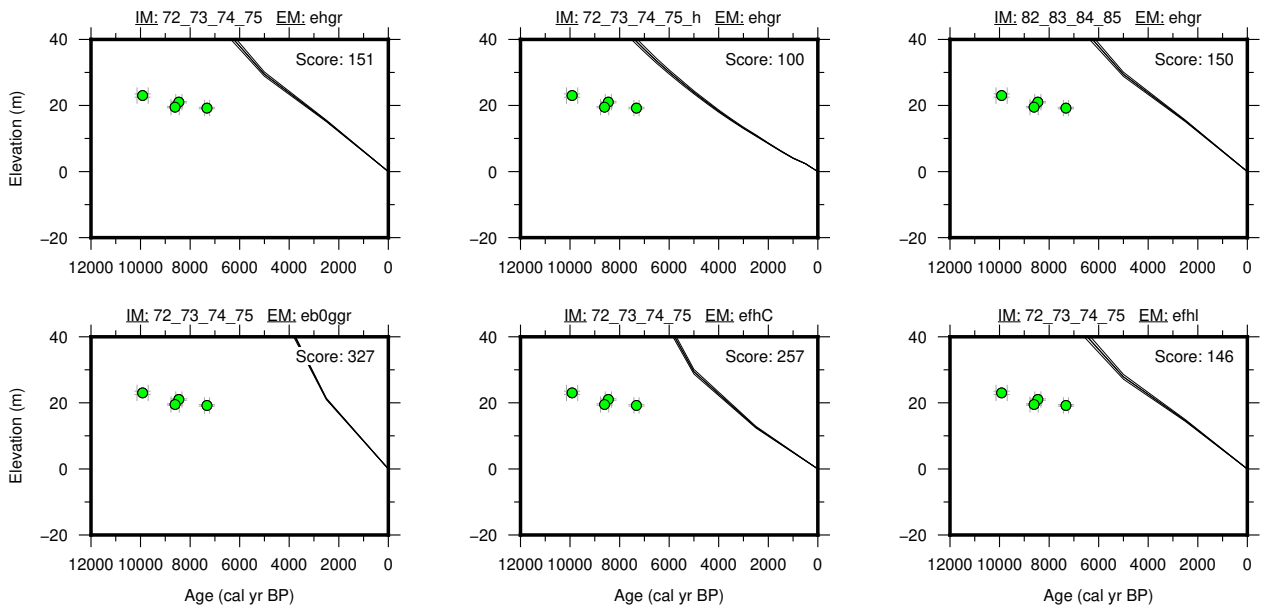
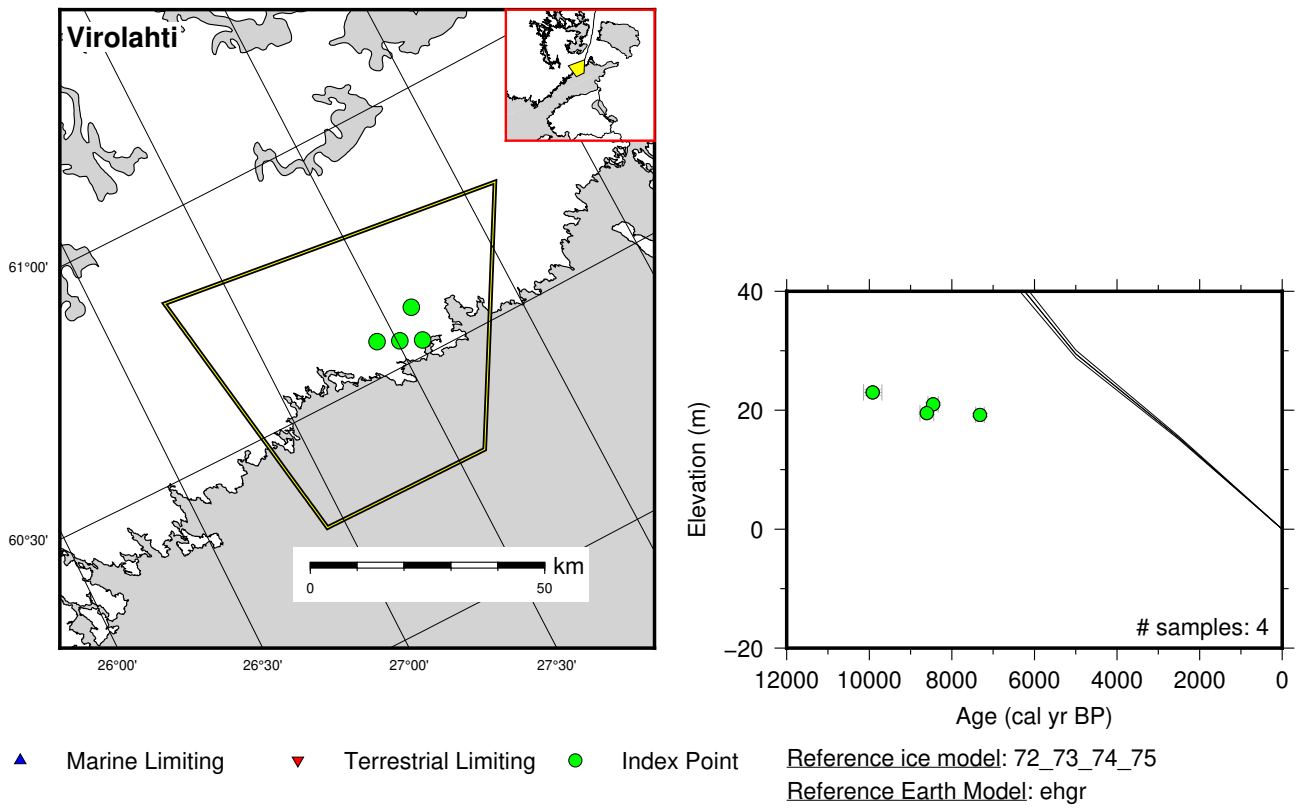


Figure 96: Paleo-sea level and comparison of six models for subregion Baltic Sea, location Virolahti.

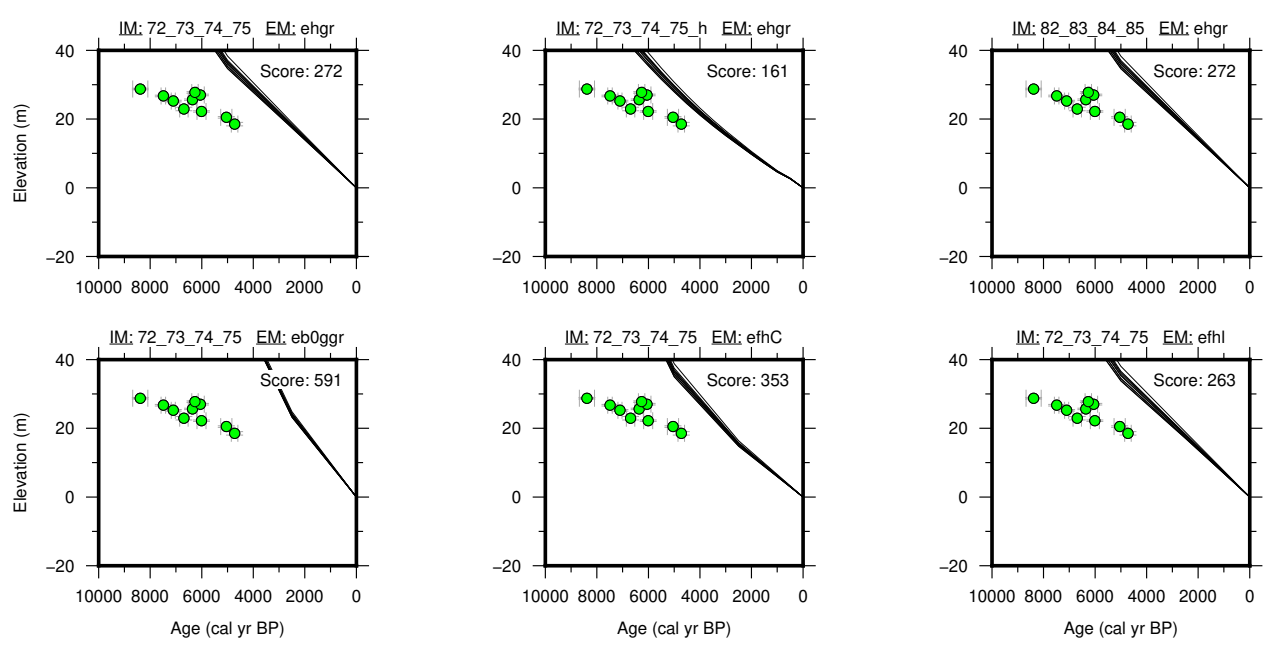
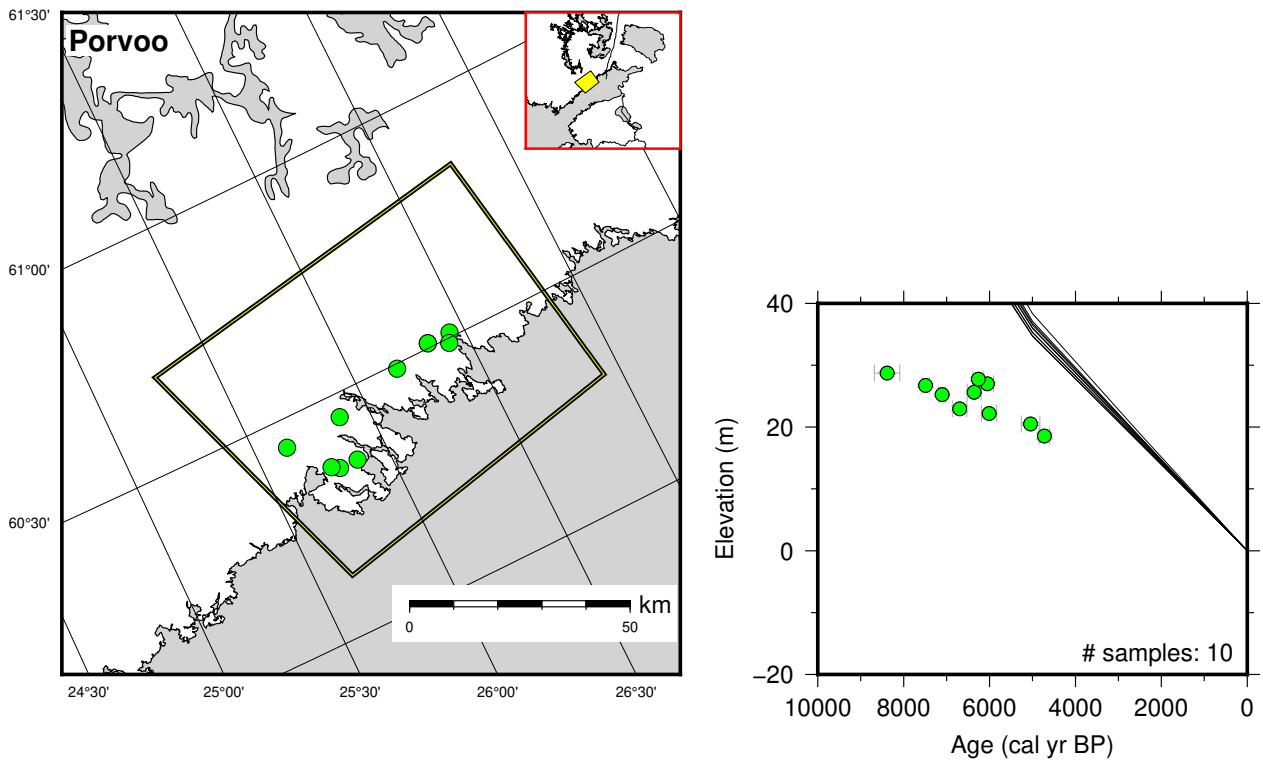


Figure 97: Paleo-sea level and comparison of six models for subregion Baltic Sea, location Porvoo.

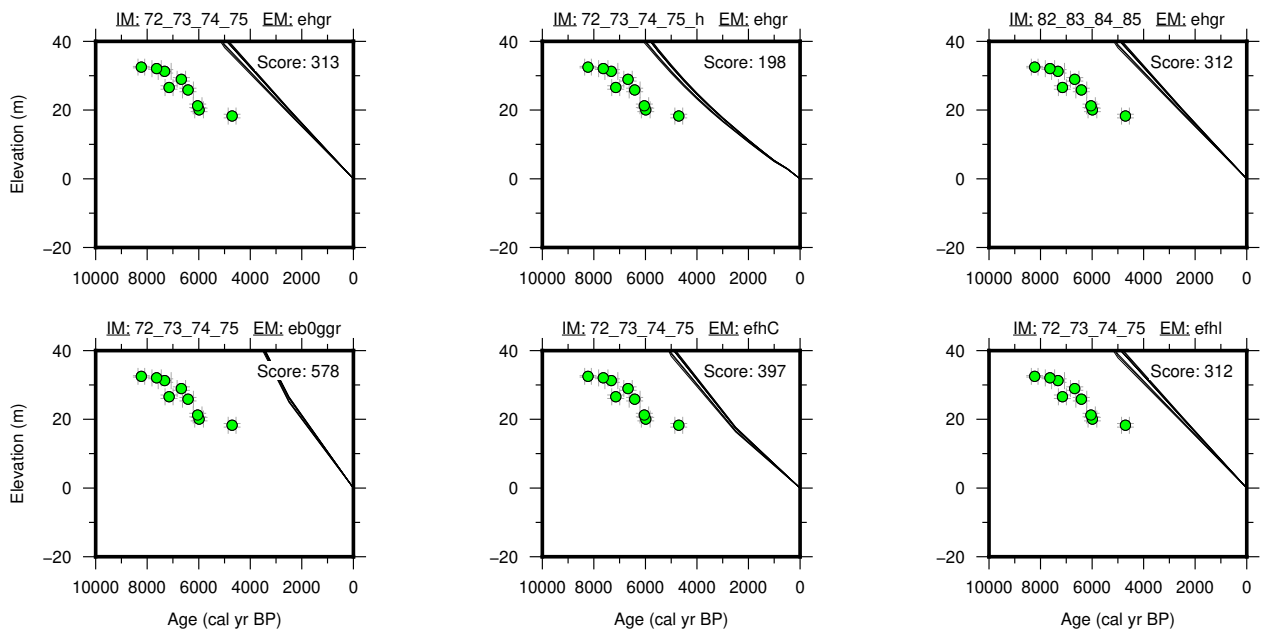
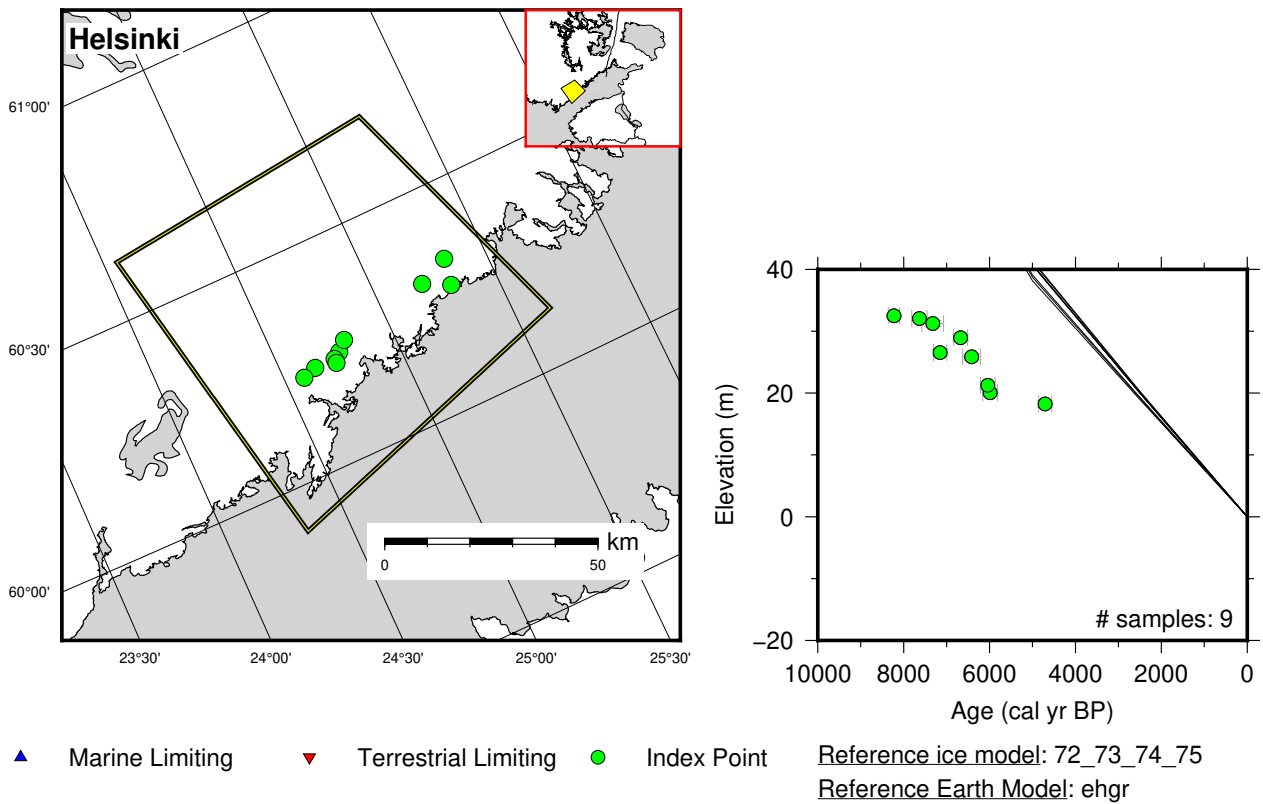


Figure 98: Paleo-sea level and comparison of six models for subregion Baltic Sea, location Helsinki.

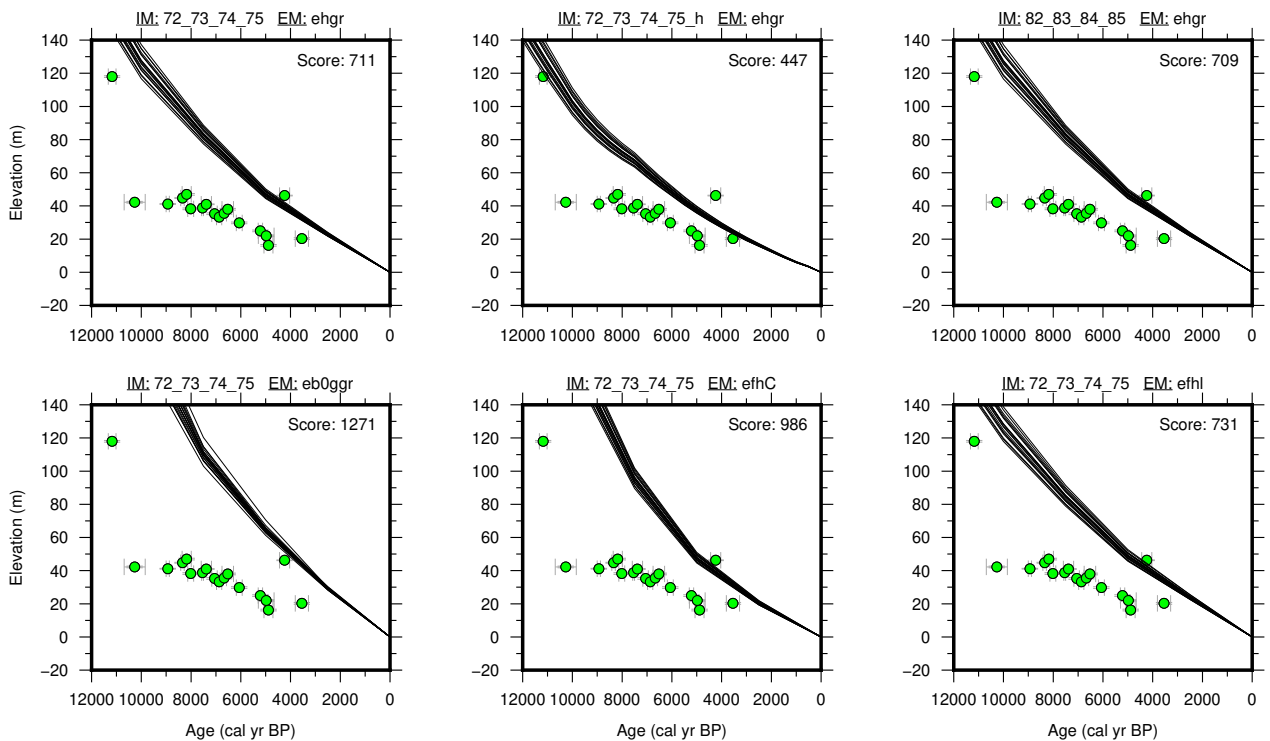
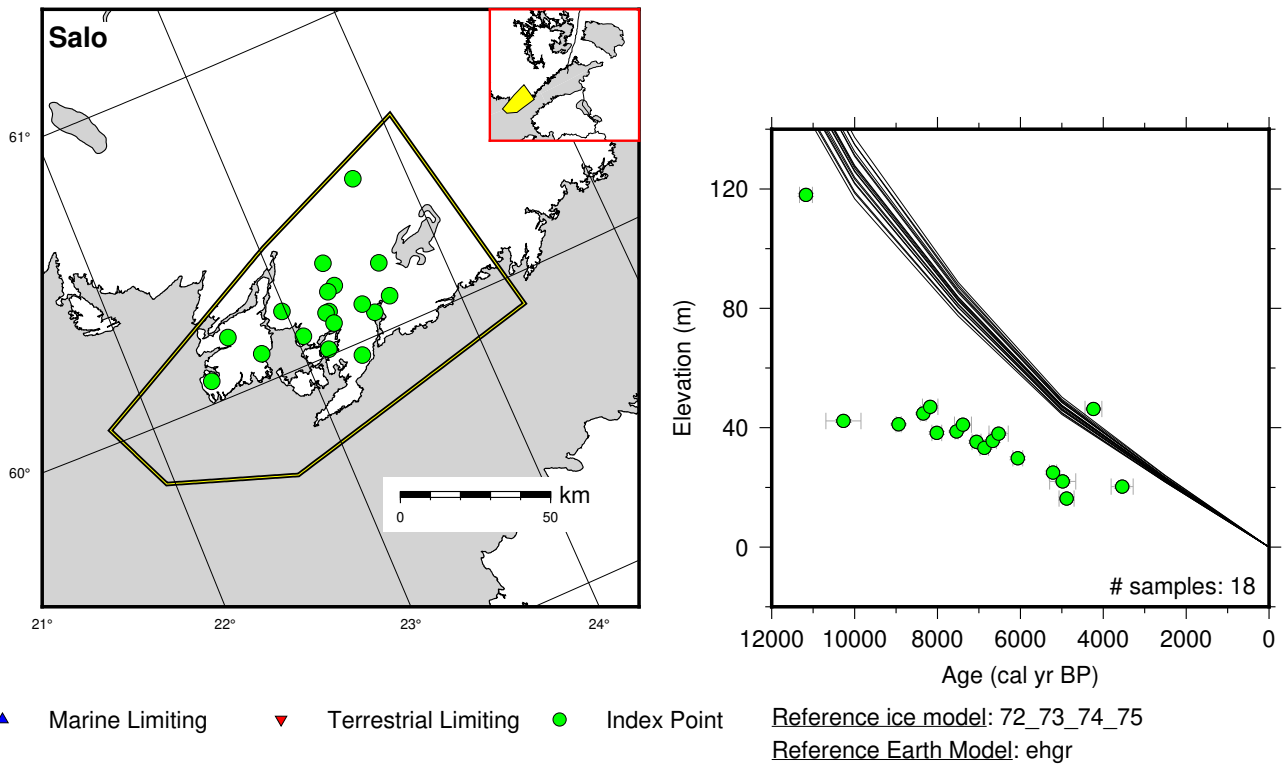
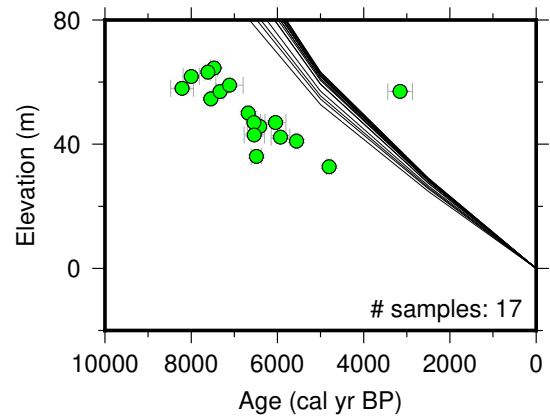
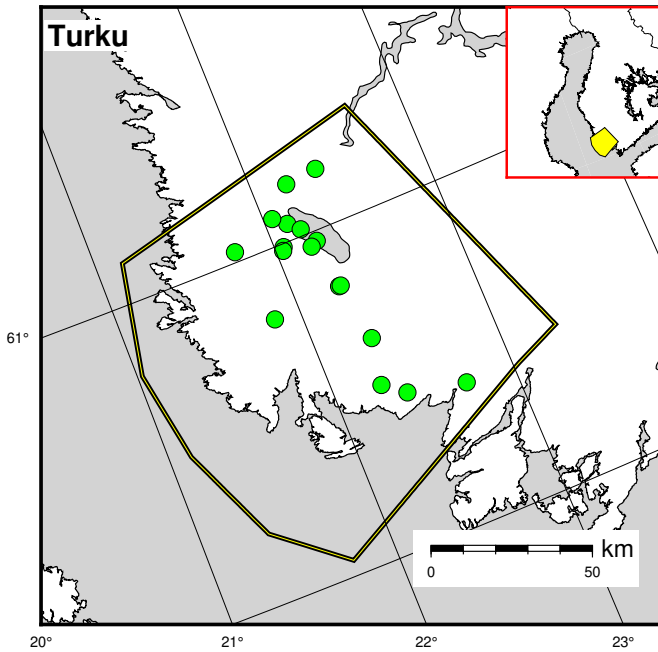


Figure 99: Paleo-sea level and comparison of six models for subregion Baltic Sea, location Salo.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point

Reference ice model: 72_73_74_75
Reference Earth Model: ehgr

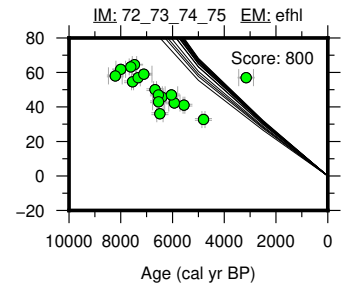
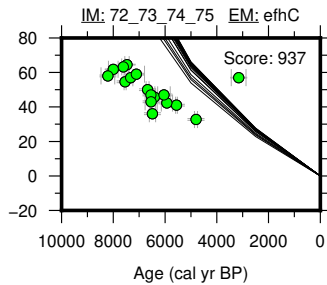
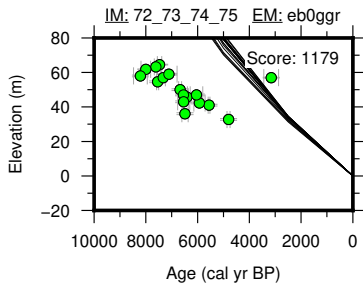
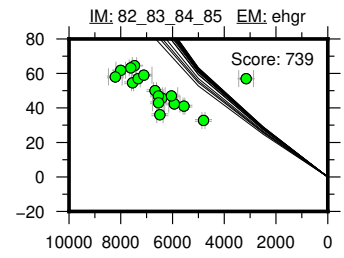
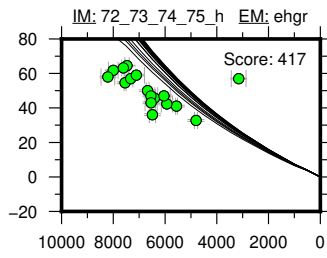
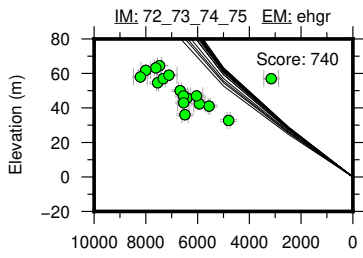
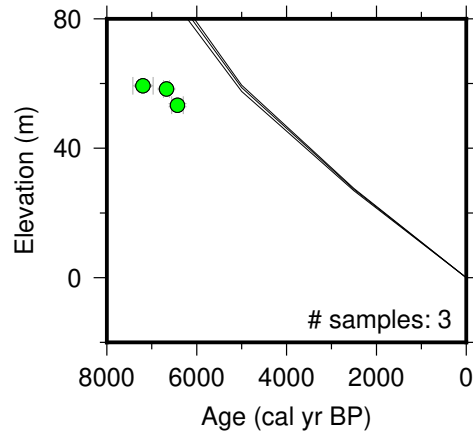
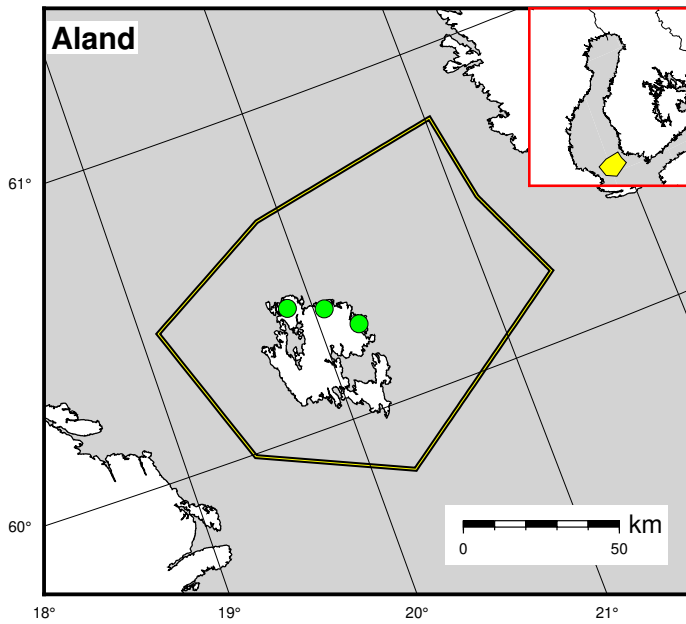


Figure 100: Paleo-sea level and comparison of six models for subregion Baltic Sea, location Turku.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point

Reference ice model: 72_73_74_75

Reference Earth Model: ehgr

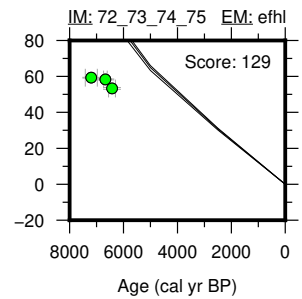
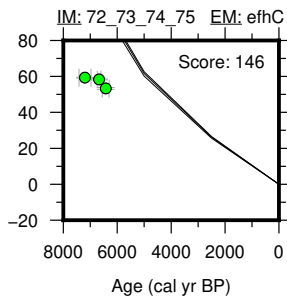
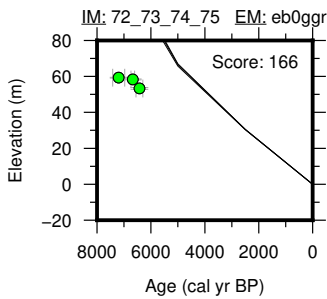
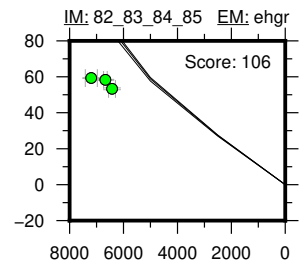
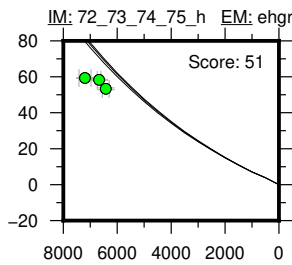
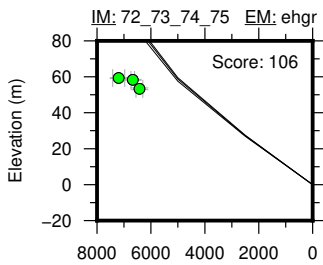


Figure 101: Paleo-sea level and comparison of six models for subregion Baltic Sea, location Aland.

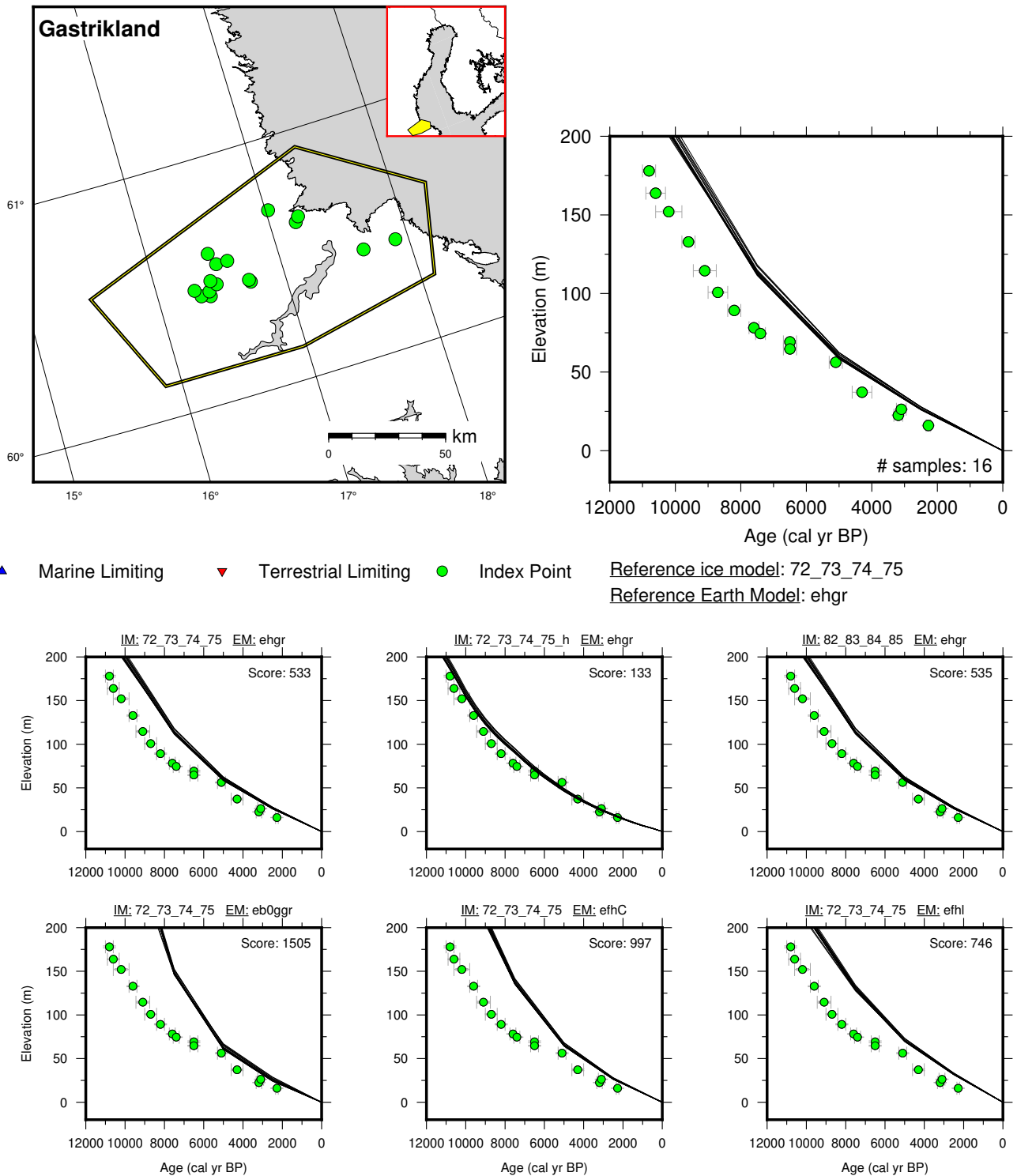
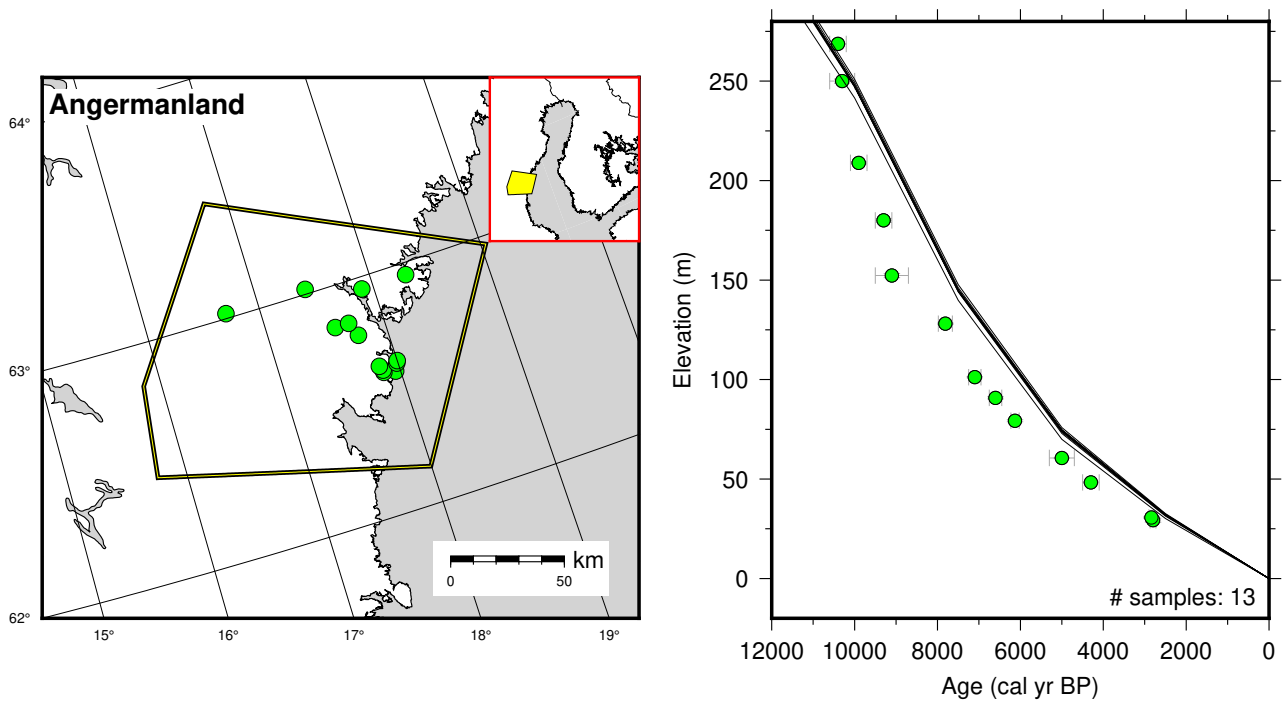


Figure 102: Paleo-sea level and comparison of six models for subregion Baltic Sea, location Gastrikland.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point Reference ice model: 72_73_74_75
 Reference Earth Model: ehgr

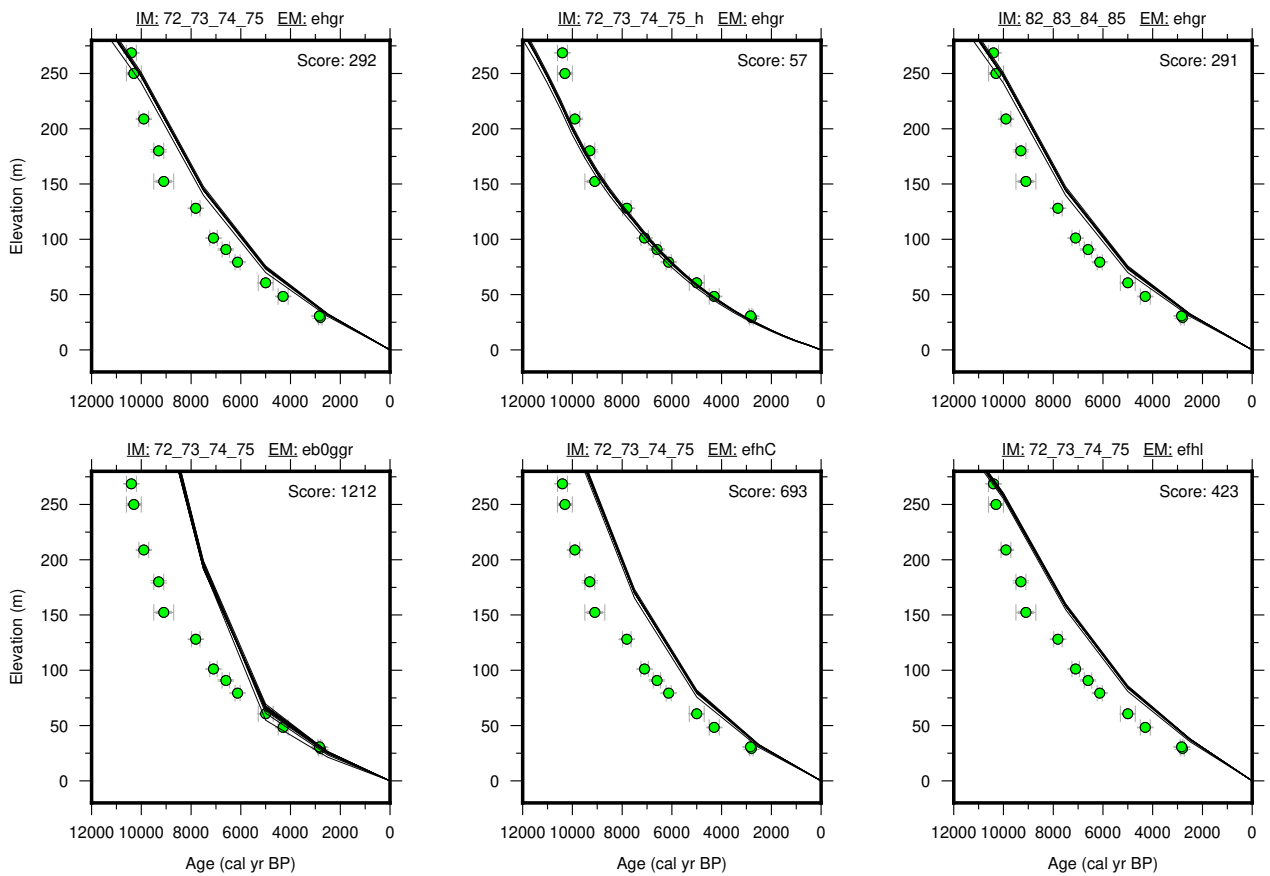
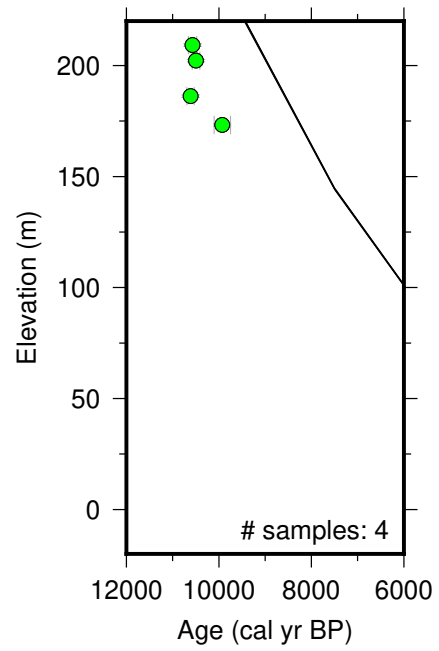
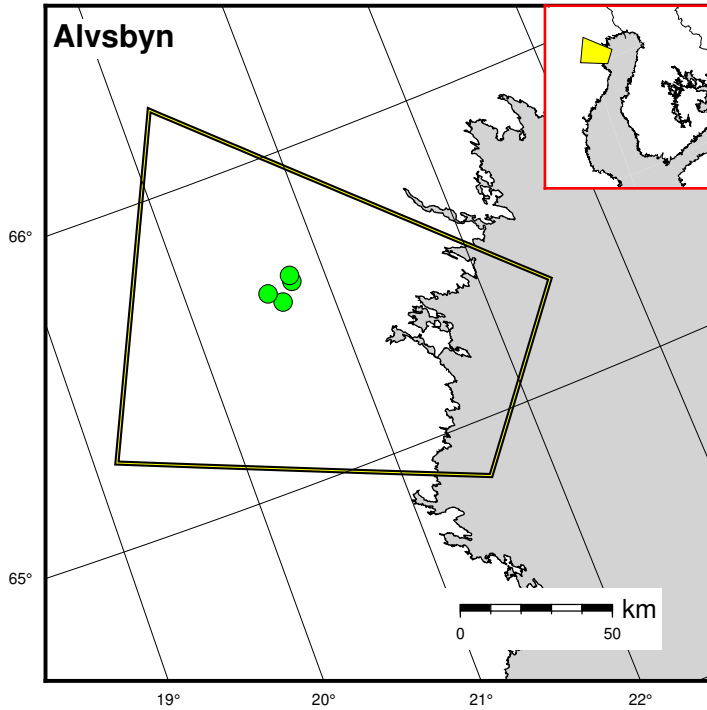


Figure 103: Paleo-sea level and comparison of six models for subregion Baltic Sea, location Angermanland.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point

Reference ice model: 72_73_74_75
Reference Earth Model: ehgr

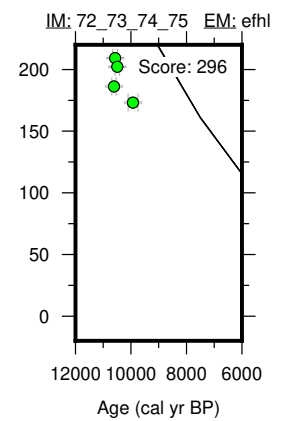
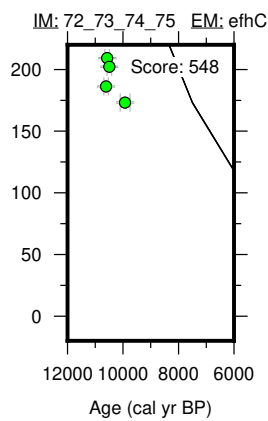
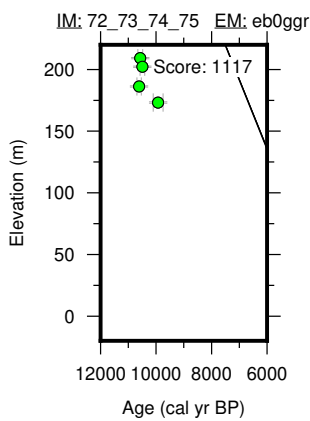
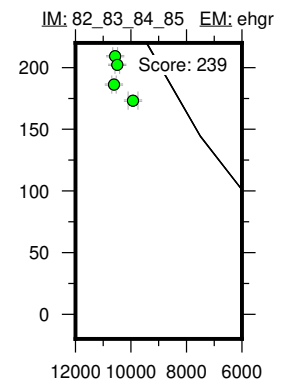
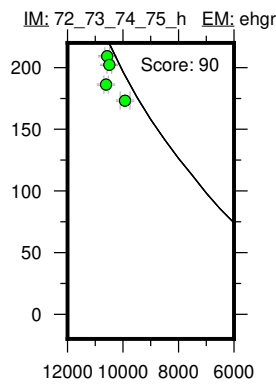
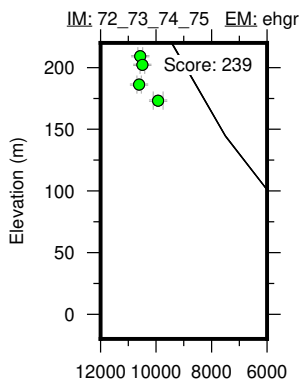


Figure 104: Paleo-sea level and comparison of six models for subregion Baltic Sea, location Alvsbyn.

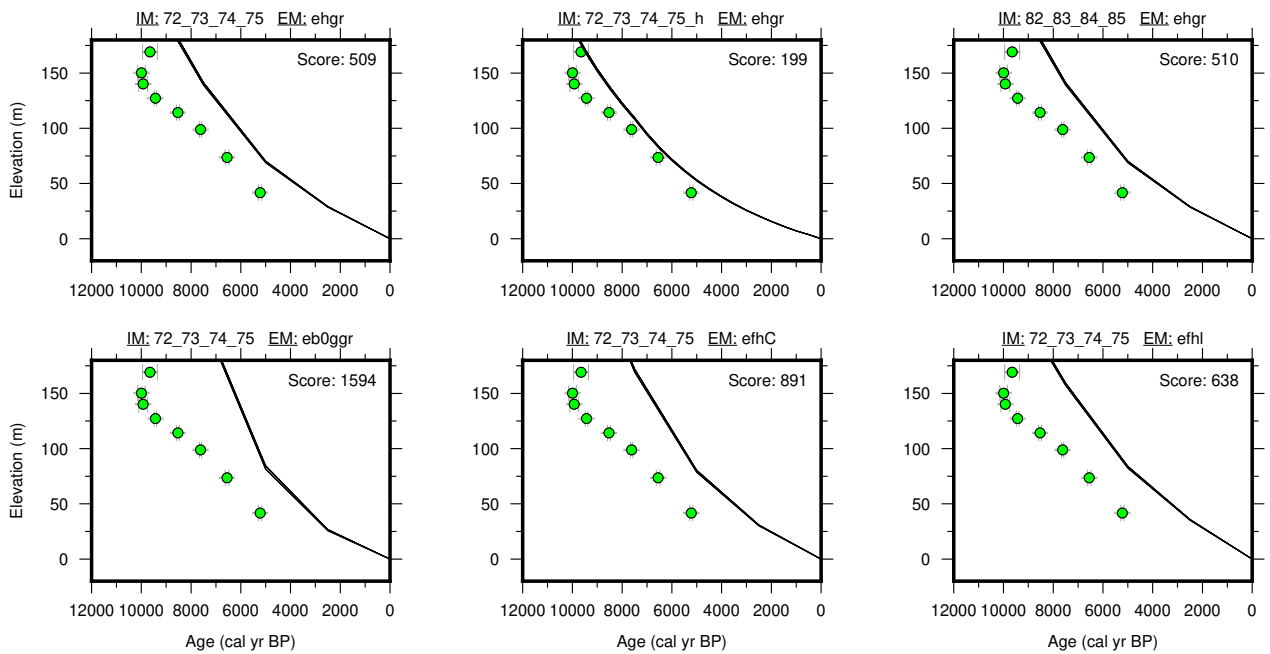
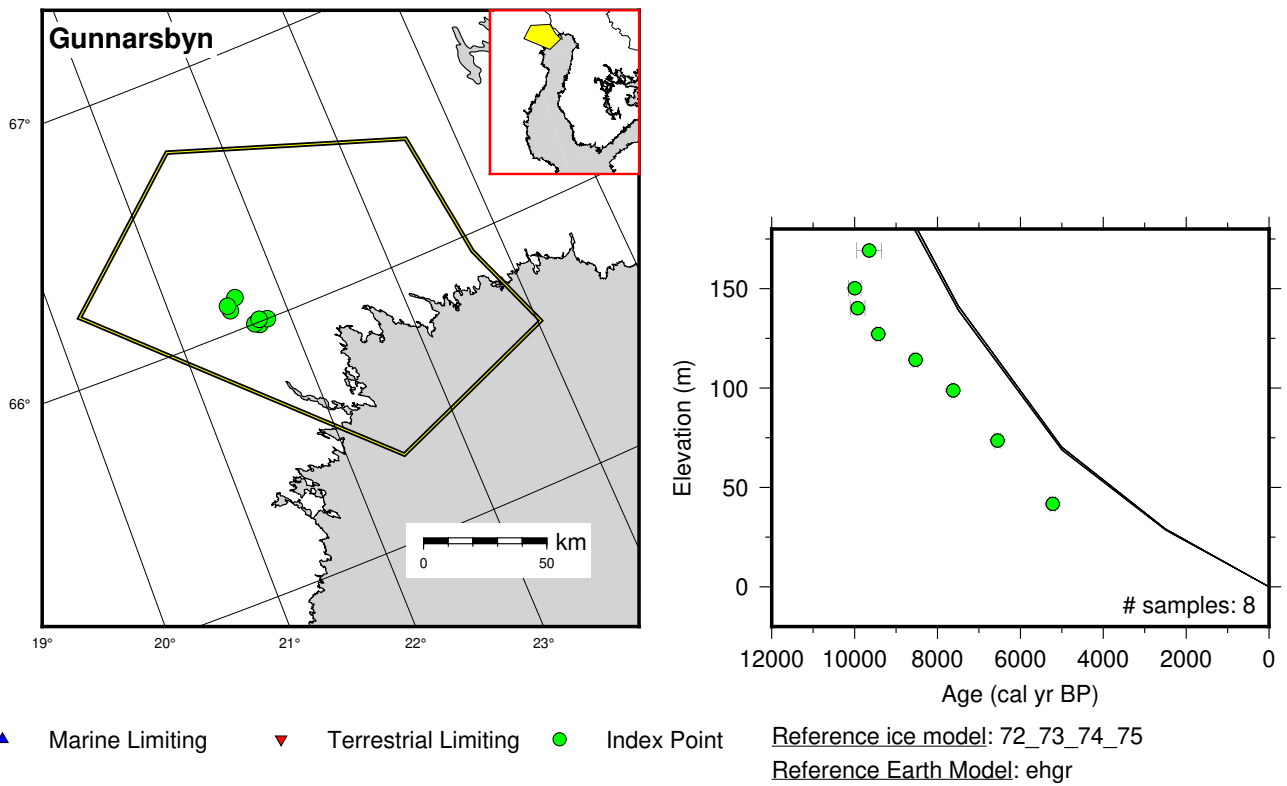


Figure 105: Paleo-sea level and comparison of six models for subregion Baltic Sea, location Gunnarsbyn.

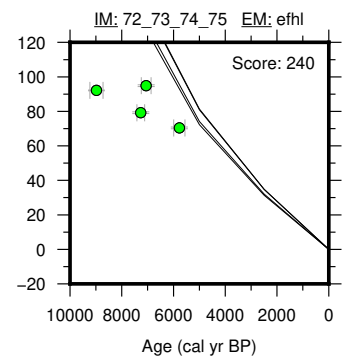
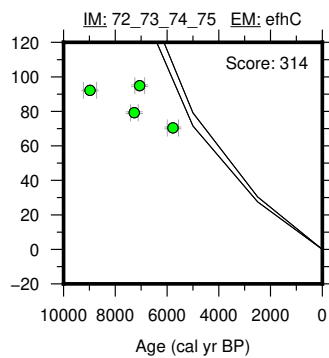
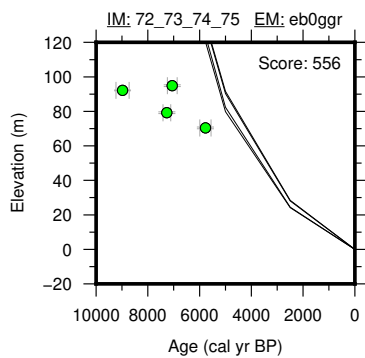
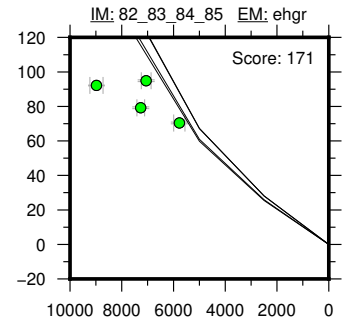
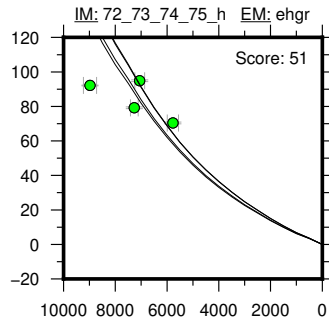
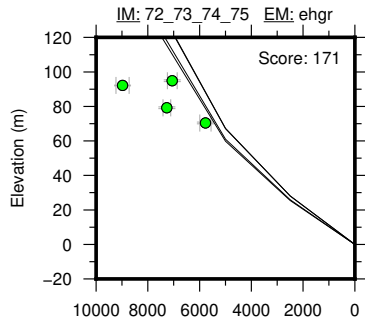
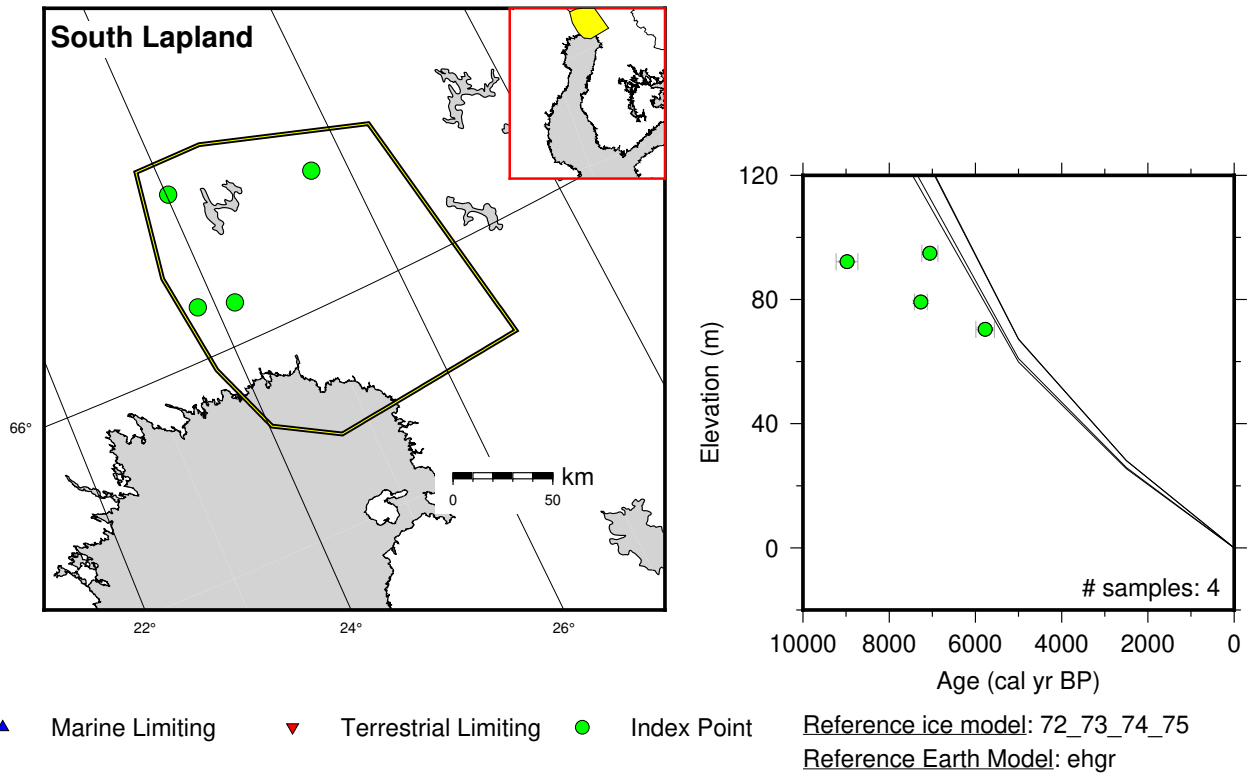


Figure 106: Paleo-sea level and comparison of six models for subregion Baltic Sea, location South Lapland.

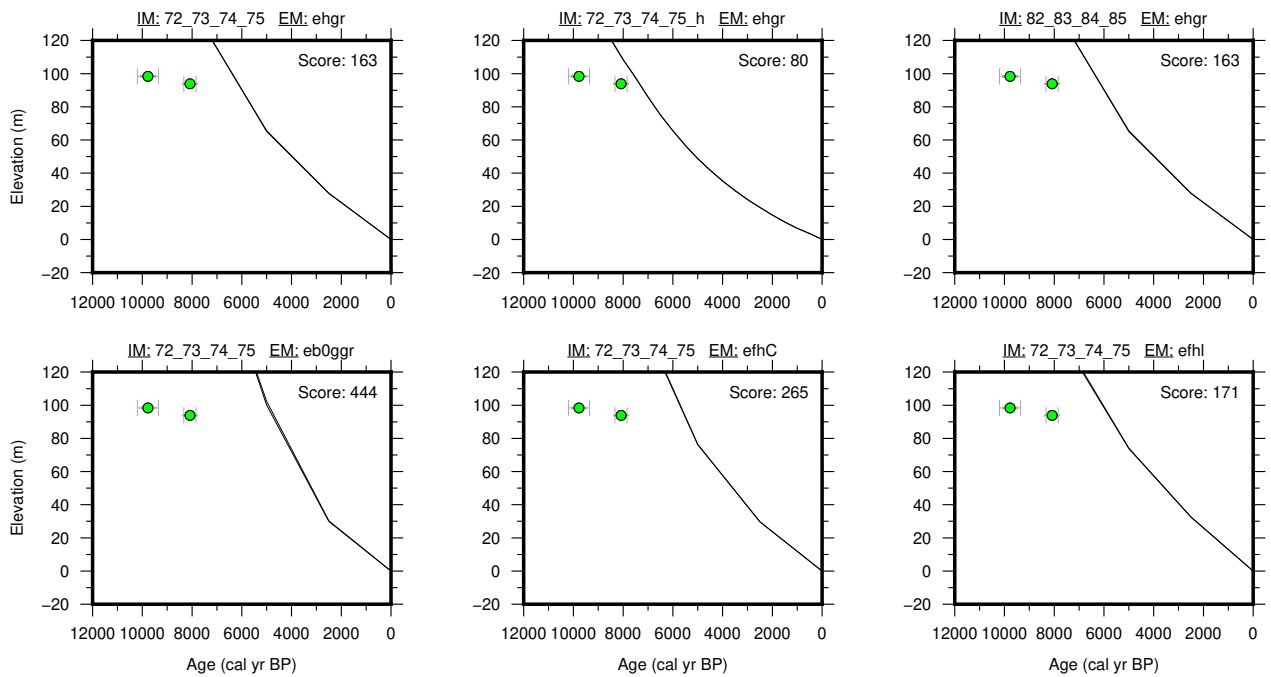
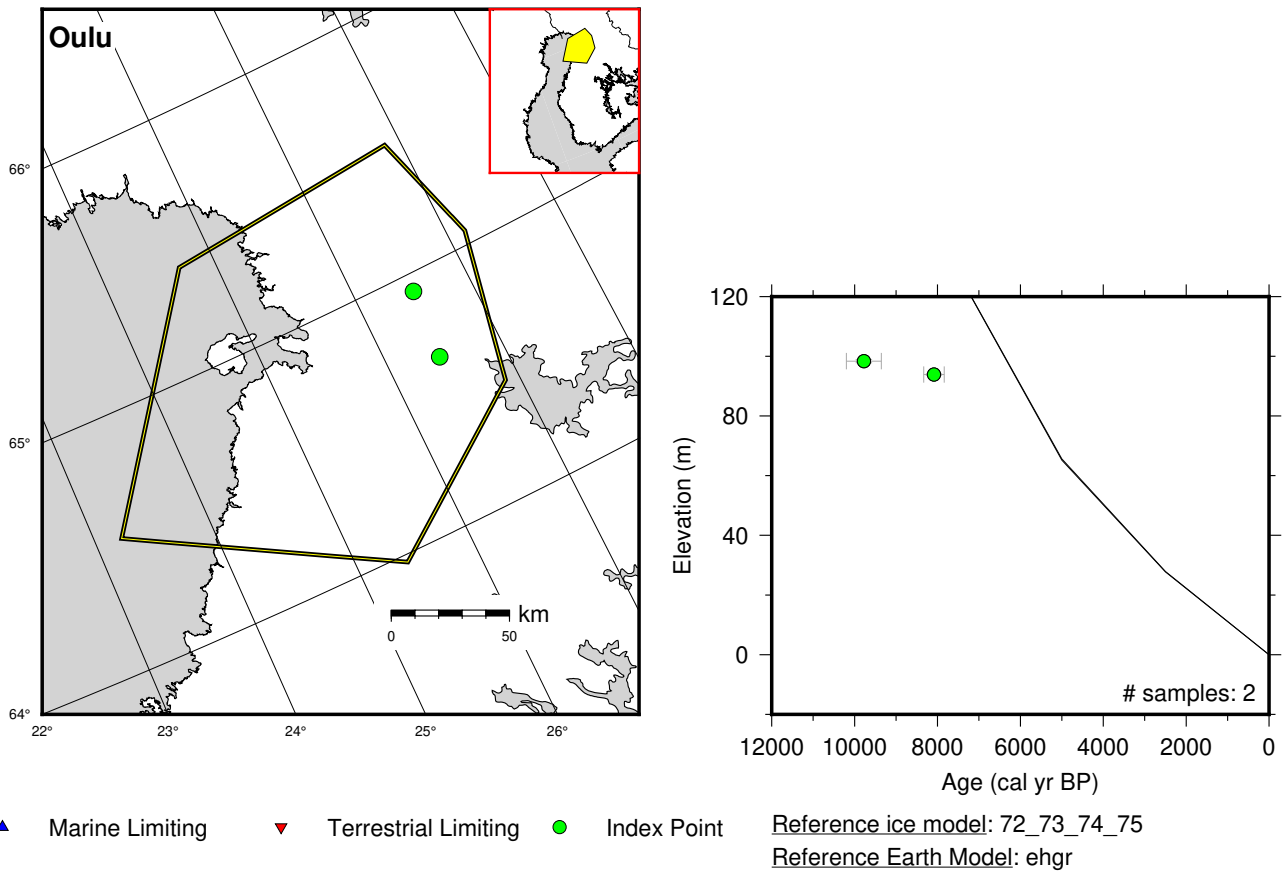
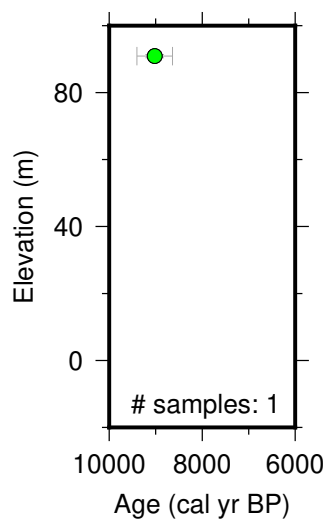
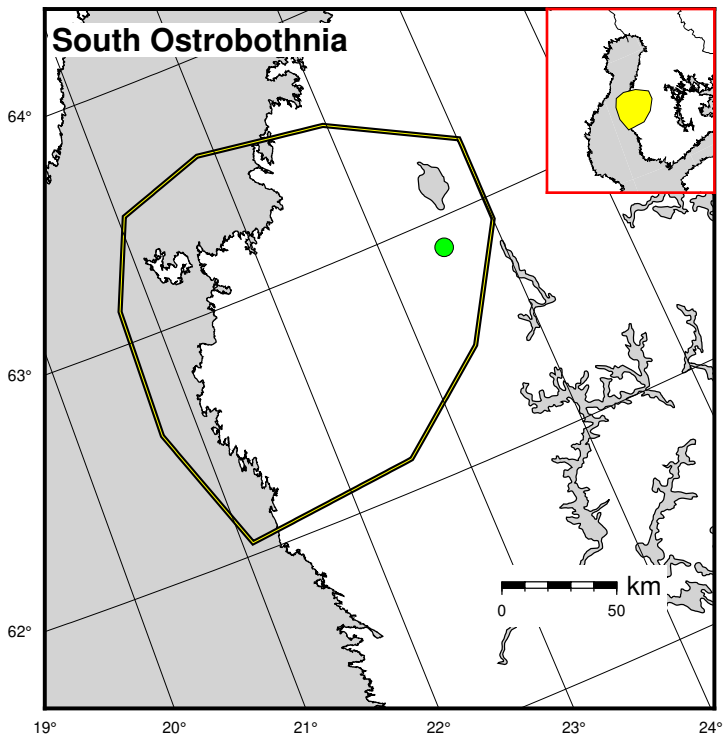


Figure 107: Paleo-sea level and comparison of six models for subregion Baltic Sea, location Oulu.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point

Reference ice model: 72_73_74_75
Reference Earth Model: ehgr

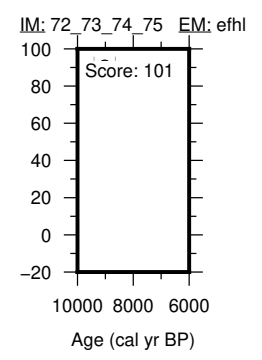
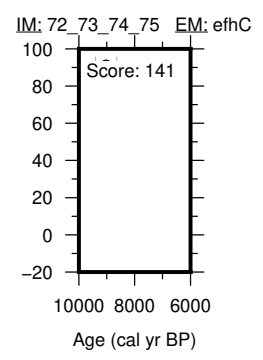
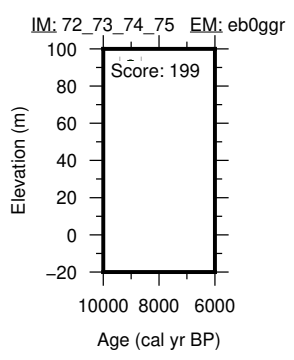
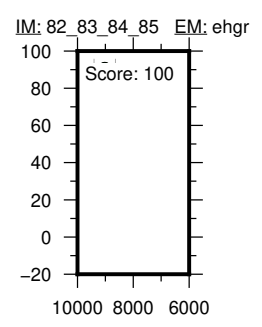
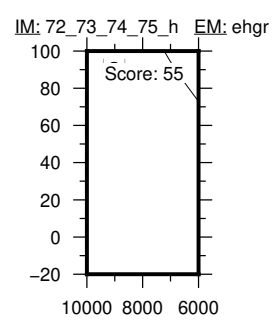
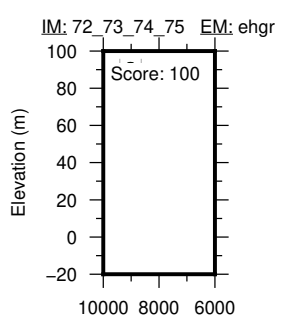
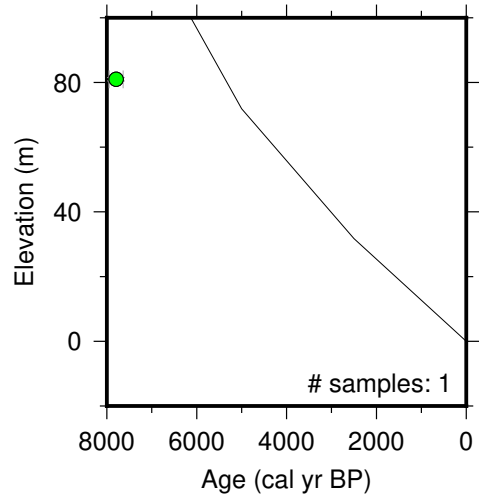
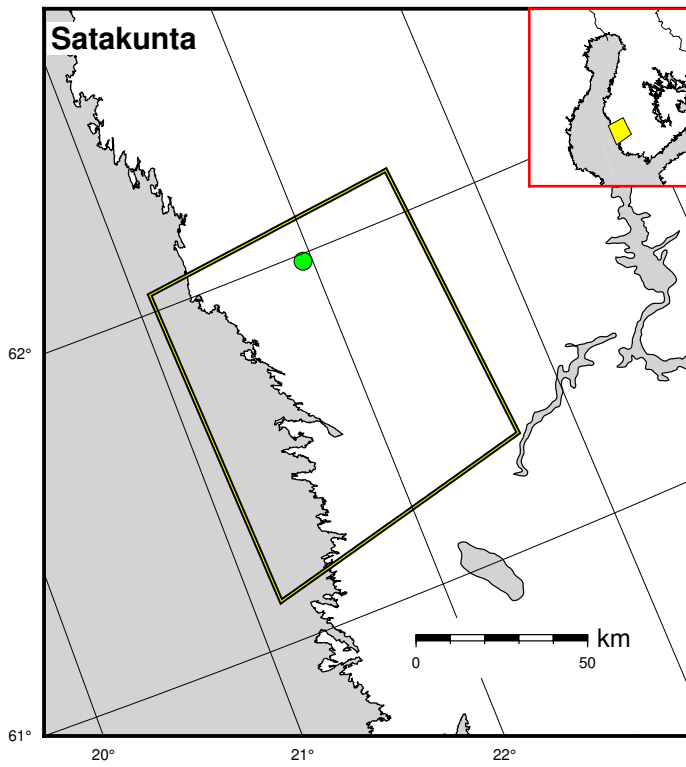


Figure 108: Paleo-sea level and comparison of six models for subregion Baltic Sea, location South Ostrobothnia.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point

Reference ice model: 72_73_74_75
Reference Earth Model: ehgr

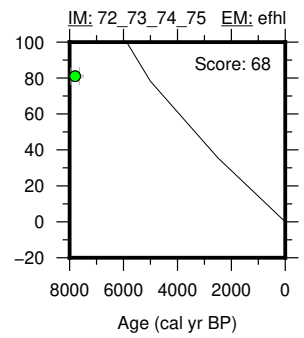
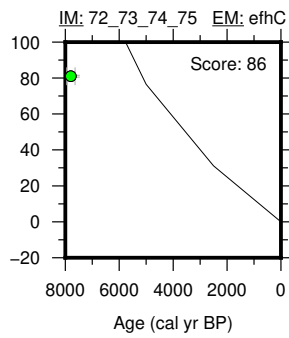
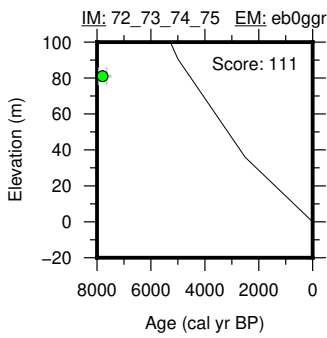
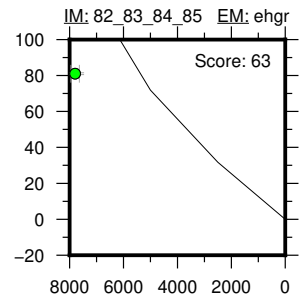
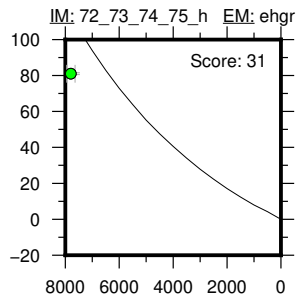
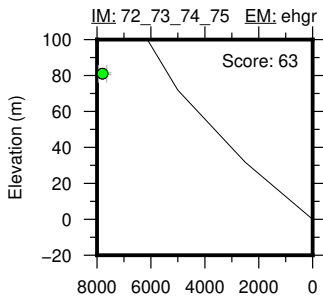
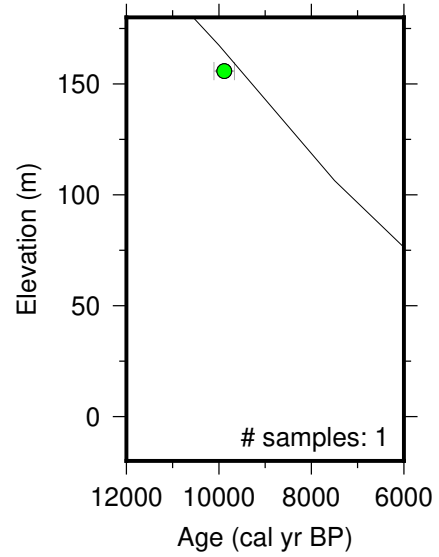
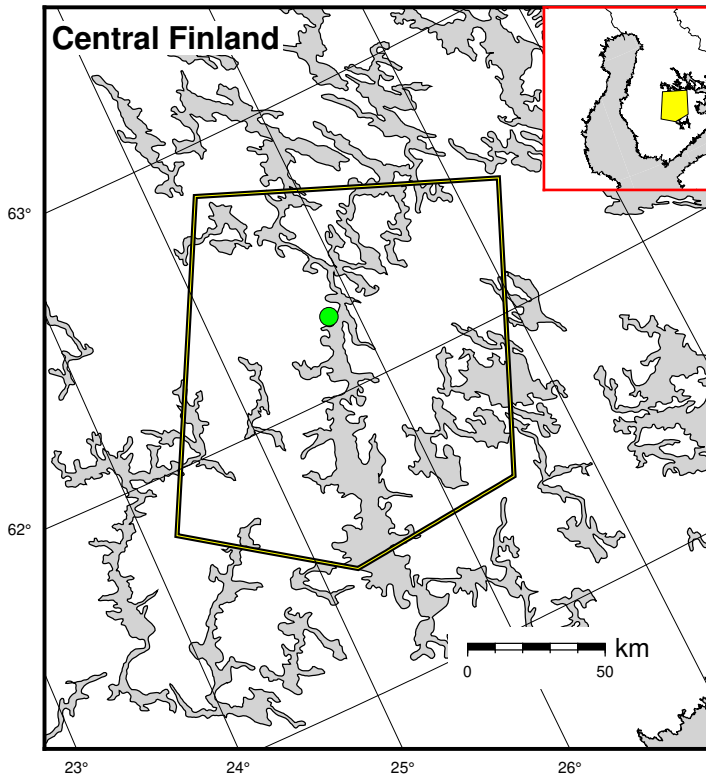


Figure 109: Paleo-sea level and comparison of six models for subregion Baltic Sea, location Satakunta.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point

Reference ice model: 72_73_74_75
Reference Earth Model: ehgr

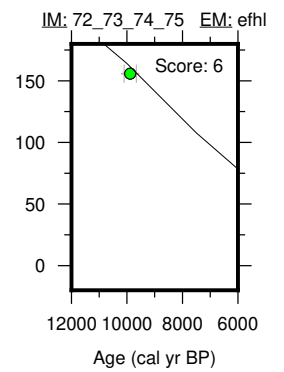
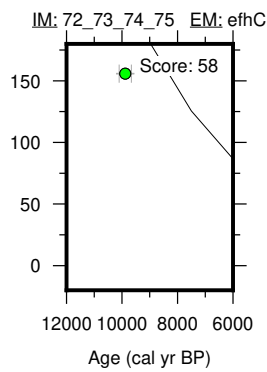
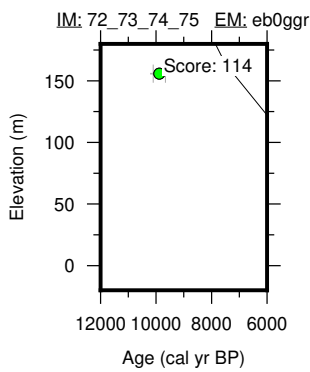
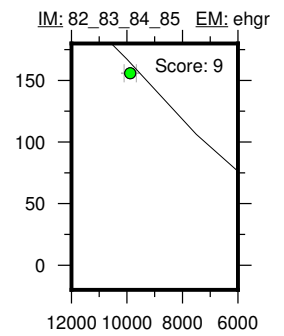
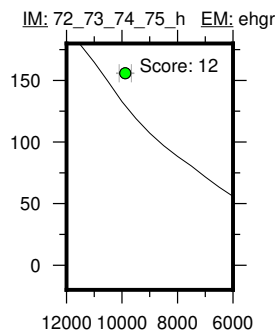
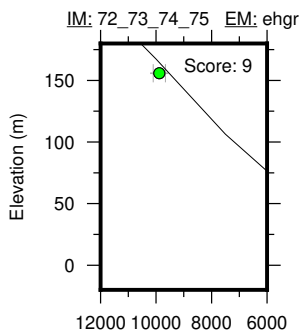


Figure 110: Paleo-sea level and comparison of six models for subregion Baltic Sea, location Central Finland.

9.2 North Sea

References for the data used in each location.

Rotterdam: Berendsen et al. (2007); Hijma and Cohen (2010, 2019); Hijma et al. (2009); Jelgersma (1961); Kiden (1989, 1995); Slupik et al. (2013); van de Plassche (1982, 1995); van de Plassche et al. (2010); van Heteren et al. (2002); Vink et al. (2007); Vos (1992, 2013); Vos and Cohen (2014); Vos et al. (2010, 2011, 2015)

Langeoog: Barckhausen (1969); Bungenstock (2005); Bungenstock et al. (2021); Mauz and Bungenstock (2007); NIBIS® Map Server (2014)

Netherlands Wadden Sea: Bakker (1992); De Groot et al. (1996); De Jong (1984); Griede (1978); Jelgersma (1961); Kiden and Vos (2012); Meijles et al. (2018); van der Spek (1994); Woldring et al. (2005)

Belgium: Denys and Baeteman (1995); Vink et al. (2007)

Southern Bight: Jelgersma (1961); Kiden et al. (2002); Vink et al. (2007)

Central Netherlands: Bennema (1954); Jelgersma (1961); Louwe Kooijmans (1976); Makaske et al. (2003); Roeleveld and Gotjé (1993); van de Plassche (1982); van de Plassche et al. (2005); Vink et al. (2007)

Oyster Ground: Behre and Irion (1984); Behre (2003); Jelgersma (1979); Kiden et al. (2002); Vink et al. (2007)

Dogger Bank: Behre (2003, 2007); Behre and Menke (1969); Vink et al. (2007)

Norderney: Barckhausen (1984); Behre (1970, 2003, 2007); Brandt (1980); Freund and Streif (2000); Haarnagel (1957, 1969, 1980); Reinhardt (1965); Scheder et al. (2019, 2022); Streif (1986); Vink et al. (2007)

Bremerhaven: Behre et al. (1975); Behre (2003, 2007); Behre and Kučan (1999); Brandt (1980, 1991); Ey (1995); Haarnagel (1979); Hanisch (1980); Körber-Grohne (1967); Ludwig et al. (1981); Preuss (1979); Schmid (1994); Schütte (1939); Sindowski (1969); Strahl (2002a,b); Streif (1981, 1984, 1985, 1986); Vink et al. (2007)

Elbe: Bantelmann (1960, 1966, 1975); Bantelmann et al. (1984); Behre (2003, 2007); Behre et al. (1979); Brandt (1980); Higelke et al. (1984); Linke (1982); Meier (2001a,b); Menke (1976, 1988); Rohde (1975); Vink et al. (2007)

German Bight: Behre (2003, 2007); Ludwig et al. (1979); Menke (1996); Streif et al. (1983); Vink et al. (2007)

Ho Bugt: Gehrels et al. (2006)

Limfjord: Jessen et al. (2019); Nielsen (2010, 2013); Petersen (1975, 1981, 1985, 1998); Petersen and von Platen-Hallermund (2018)

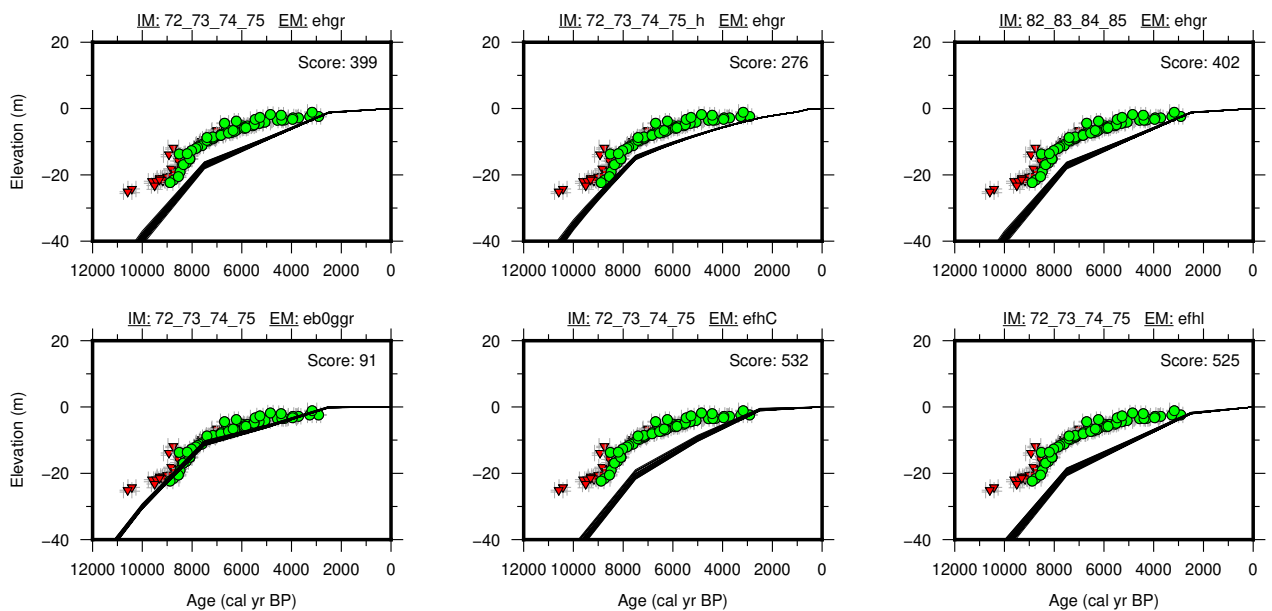
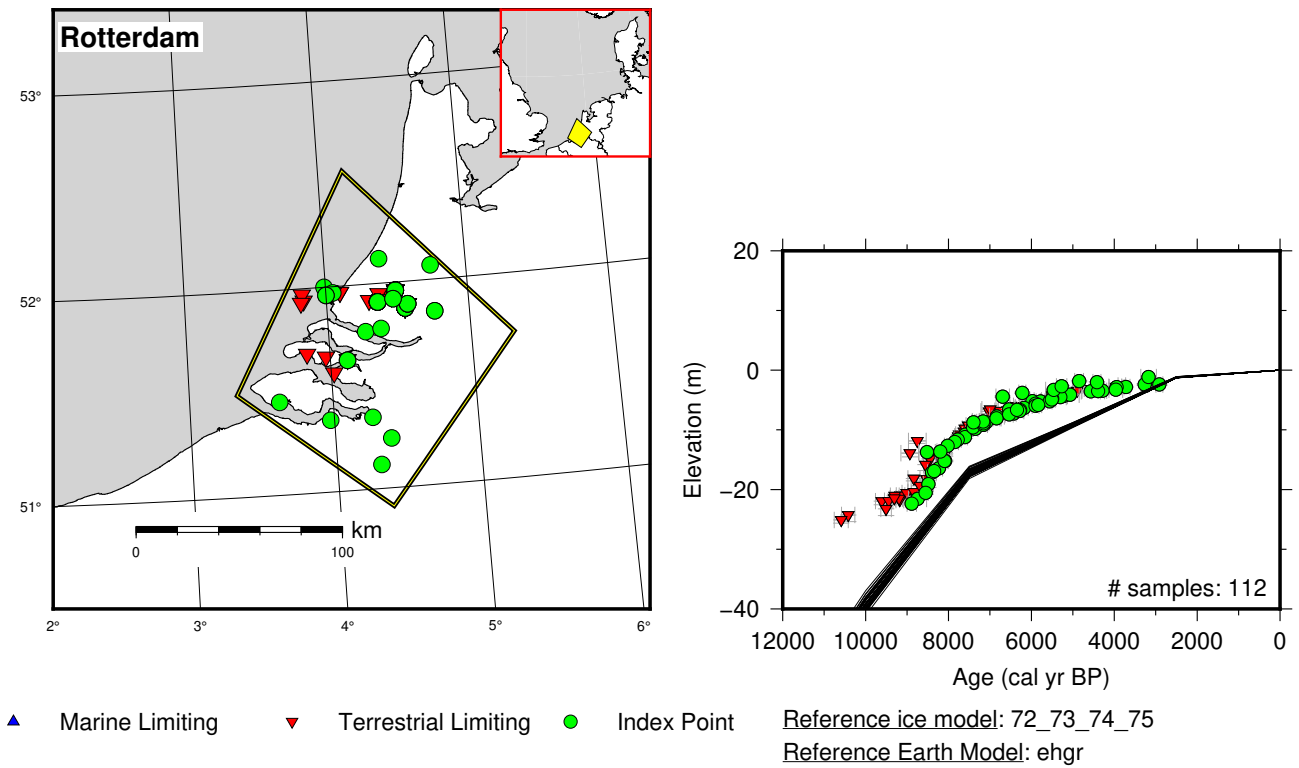


Figure 111: Paleo-sea level and comparison of six models for subregion North Sea, location Rotterdam.

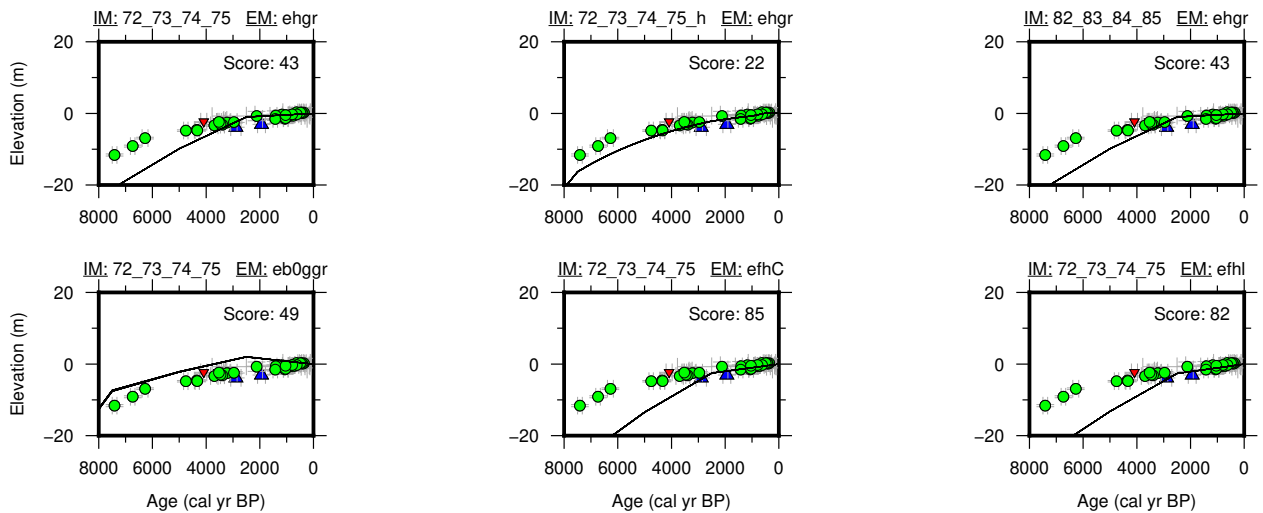
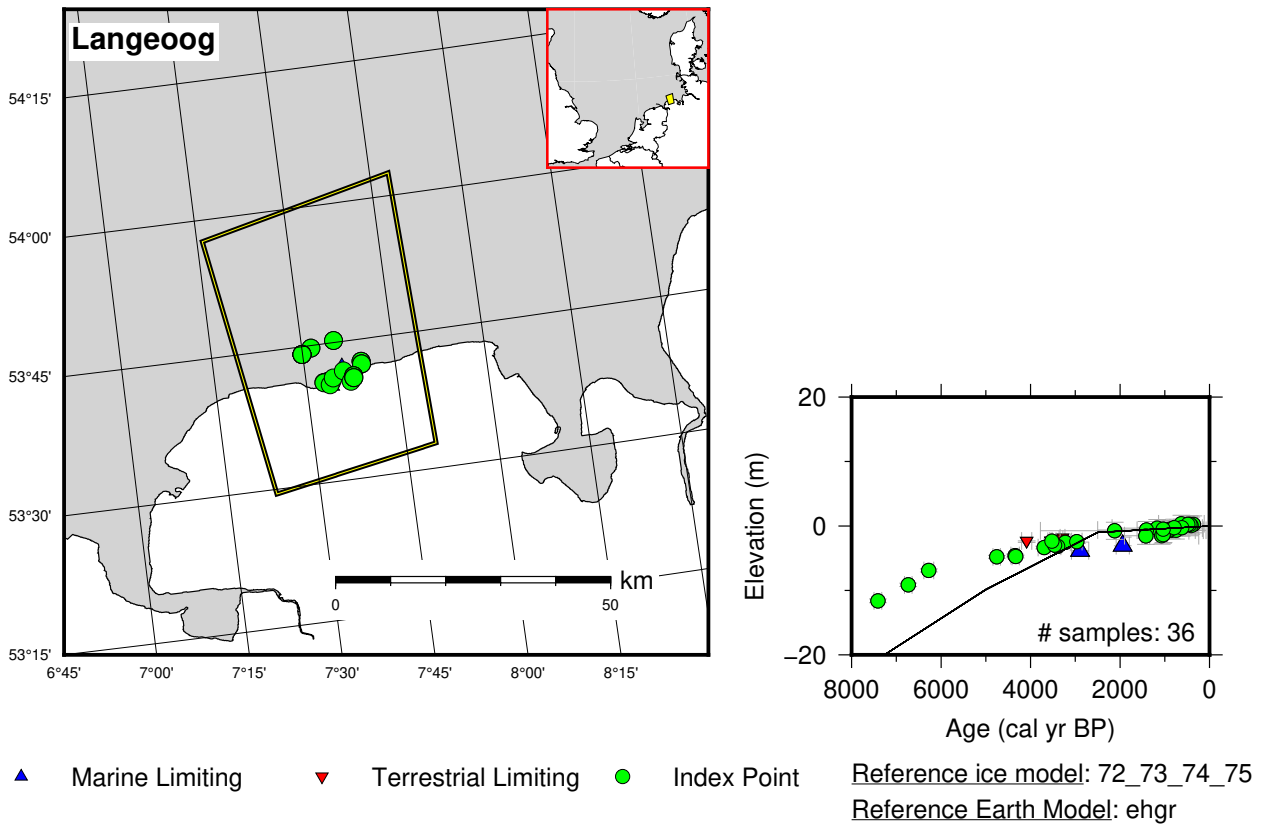
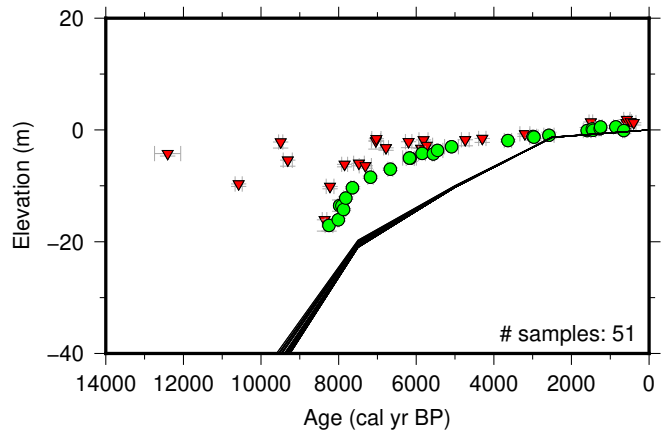
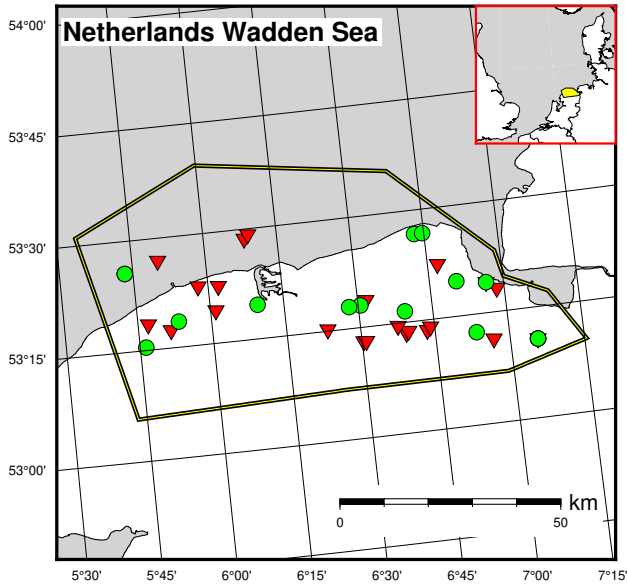


Figure 112: Paleo-sea level and comparison of six models for subregion North Sea, location Langeoog.



▲ Marine Limiting
 ▼ Terrestrial Limiting
 ● Index Point
 Reference ice model: 72_73_74_75
 Reference Earth Model: ehgr

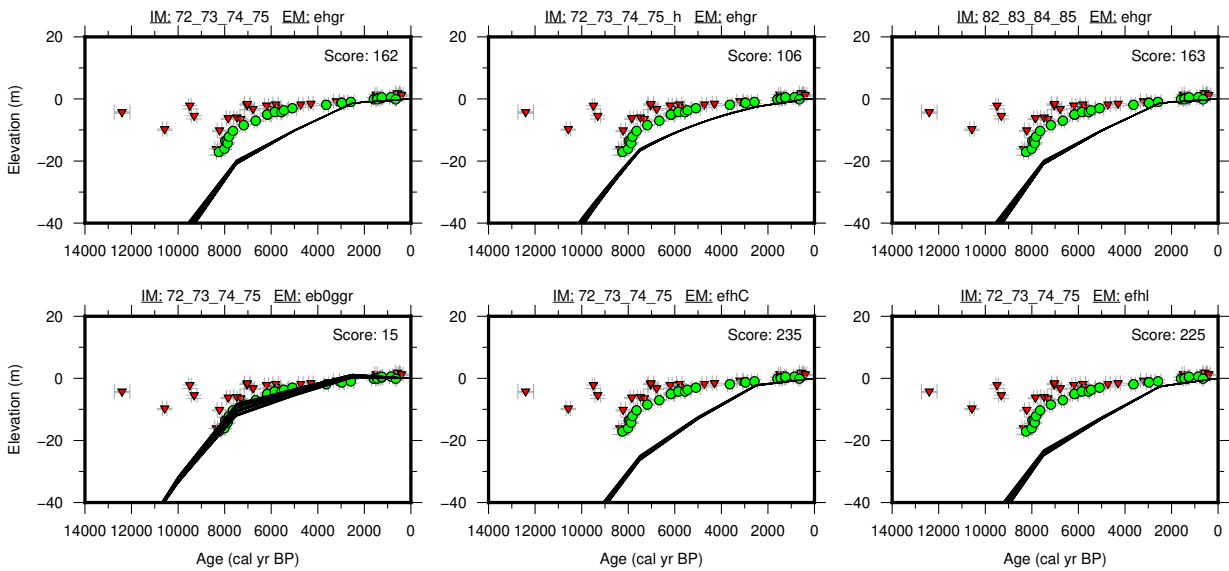


Figure 113: Paleo-sea level and comparison of six models for subregion North Sea, location Netherlands Wadden Sea.

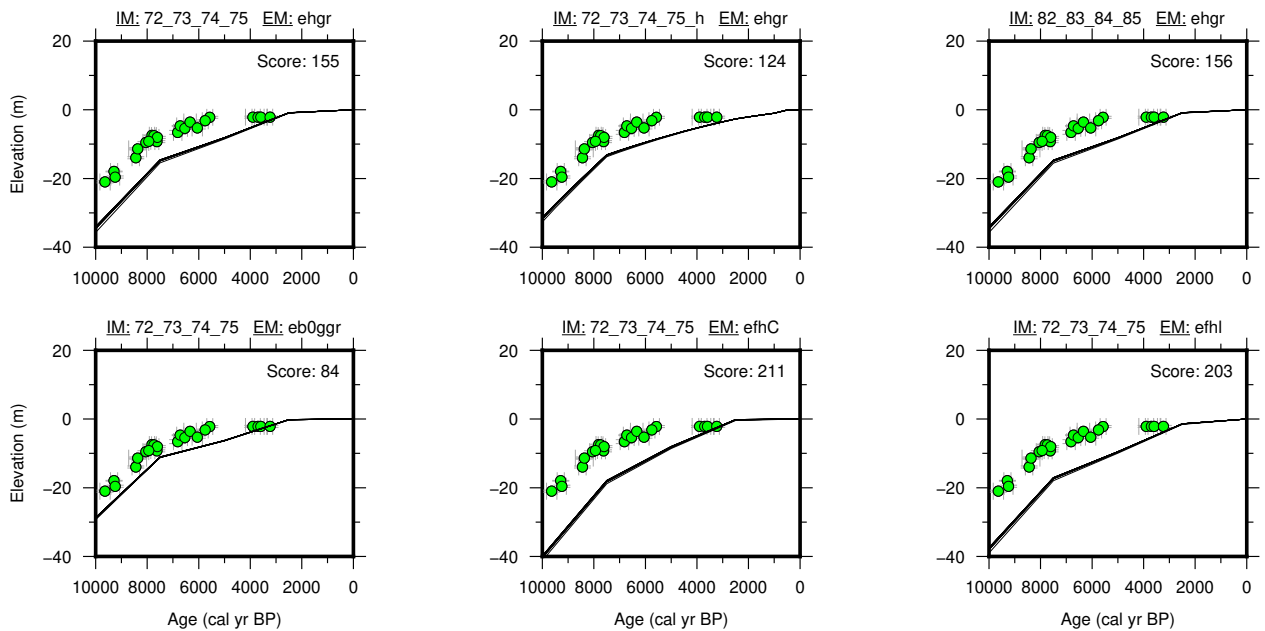
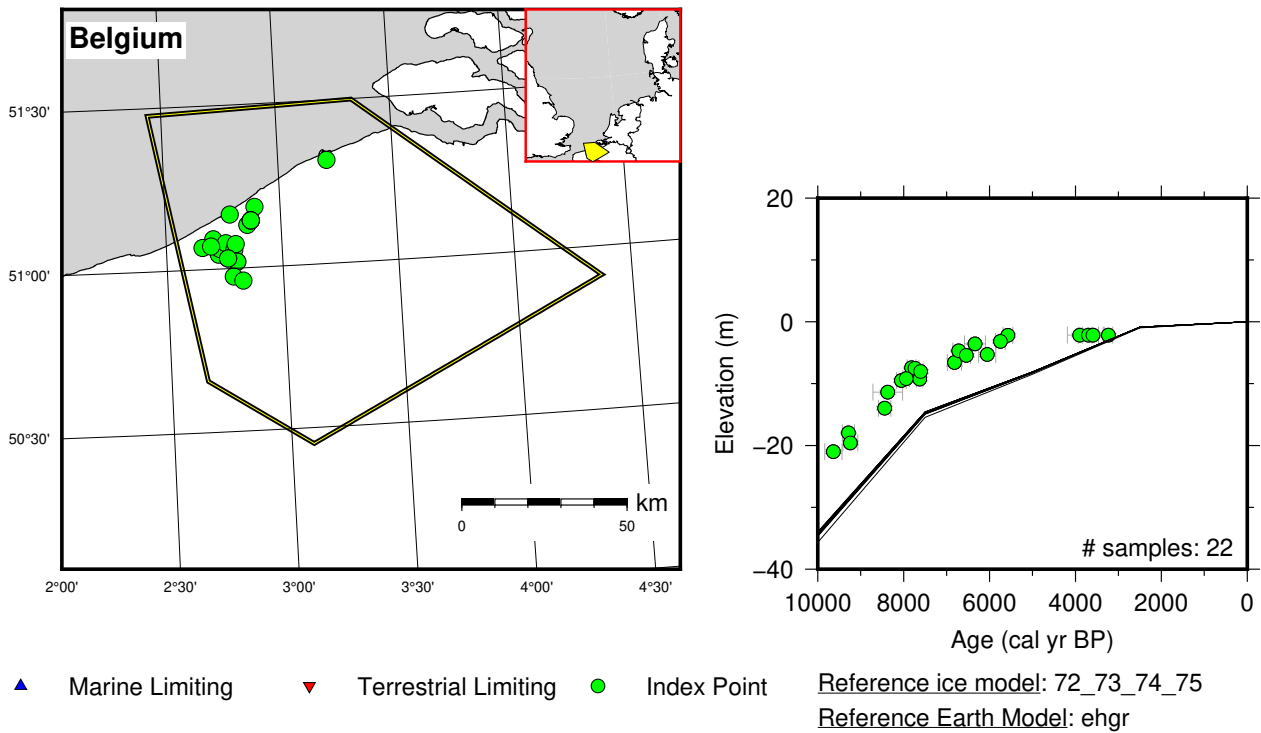
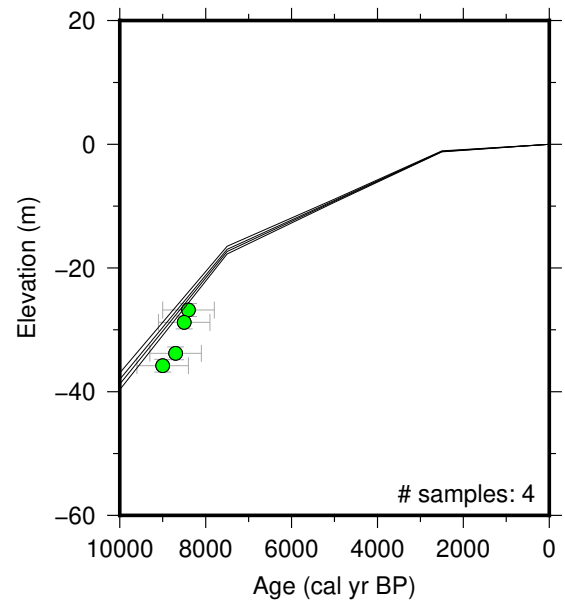
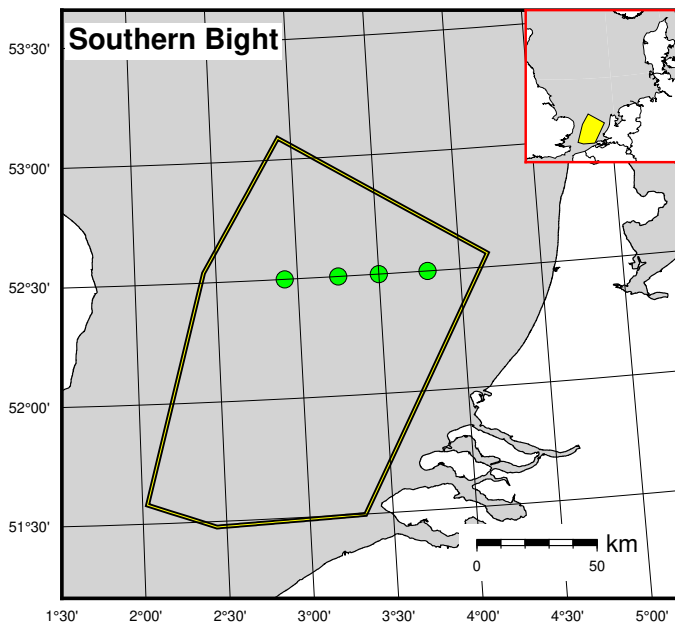


Figure 114: Paleo-sea level and comparison of six models for subregion North Sea, location Belgium.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point Reference ice model: 72_73_74_75
 Reference Earth Model: ehgr

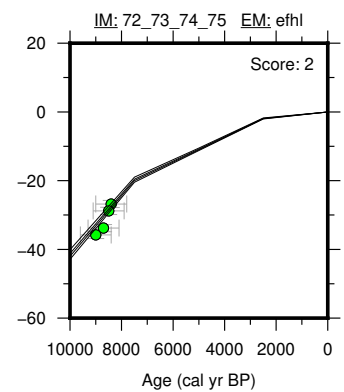
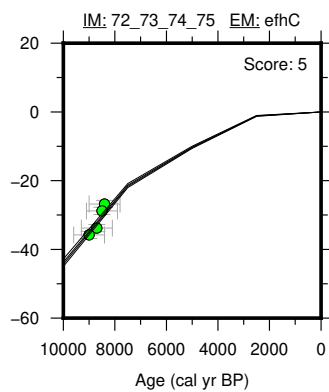
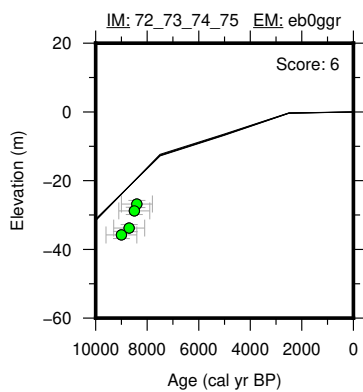
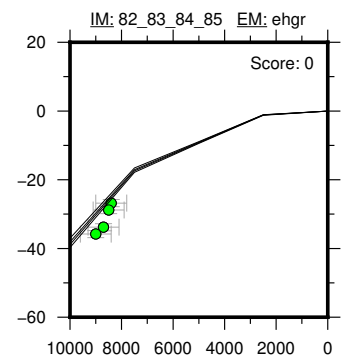
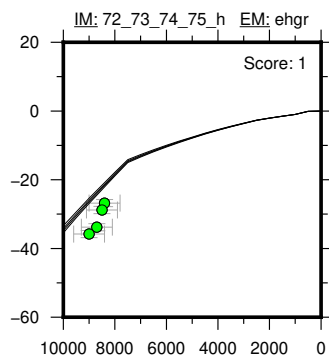
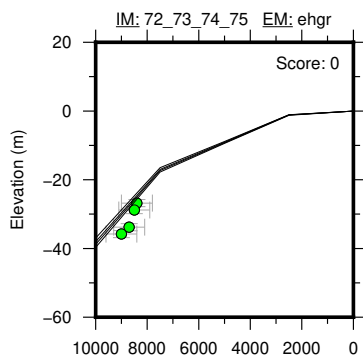
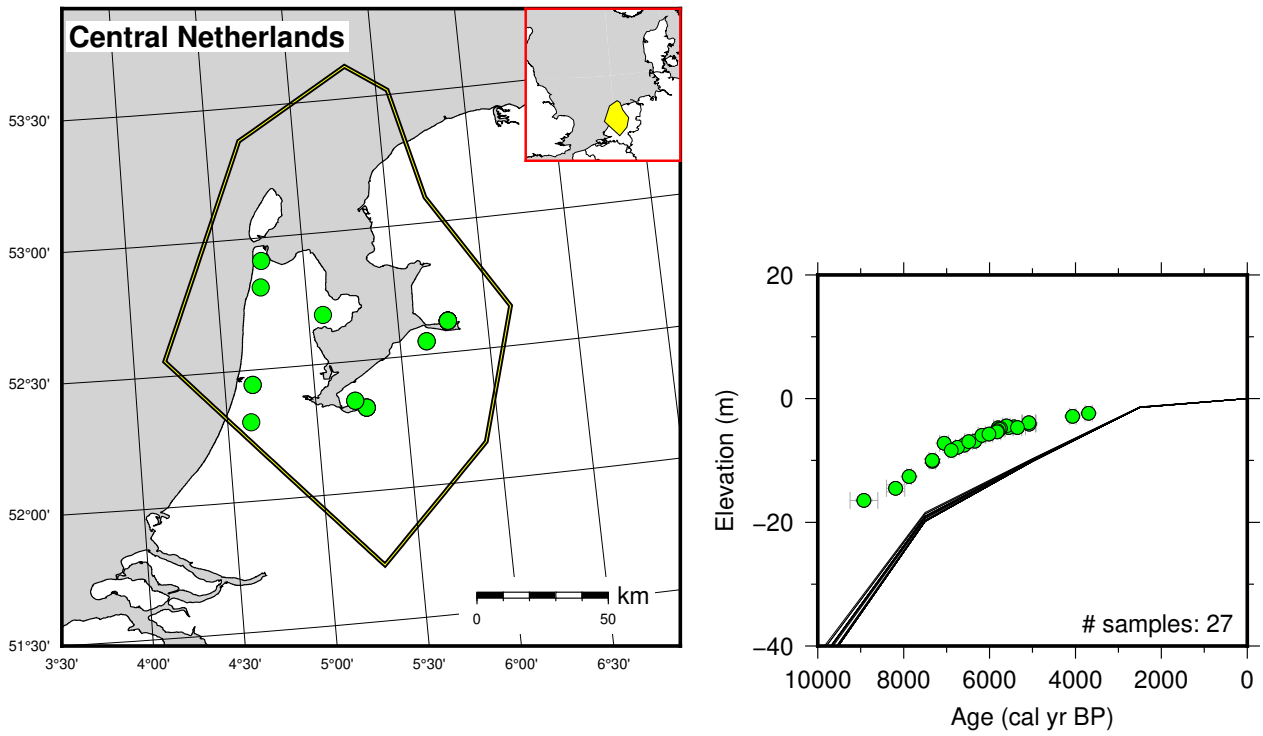


Figure 115: Paleo-sea level and comparison of six models for subregion North Sea, location Southern Bight.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point Reference ice model: 72_73_74_75
 Reference Earth Model: ehgr

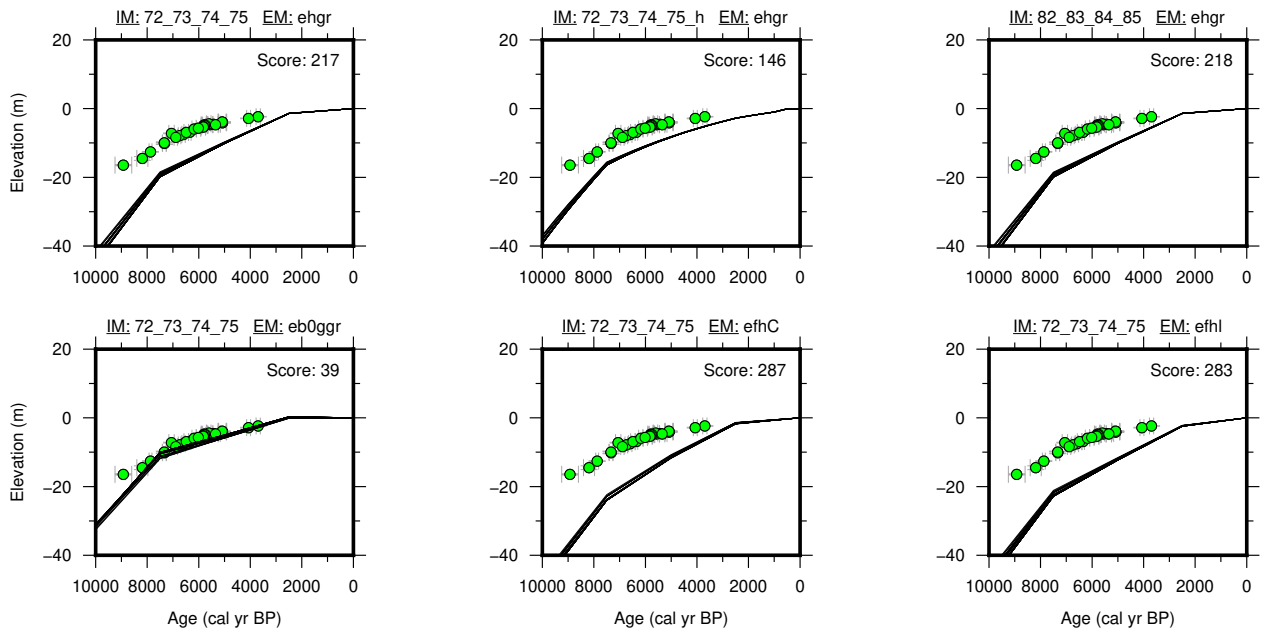
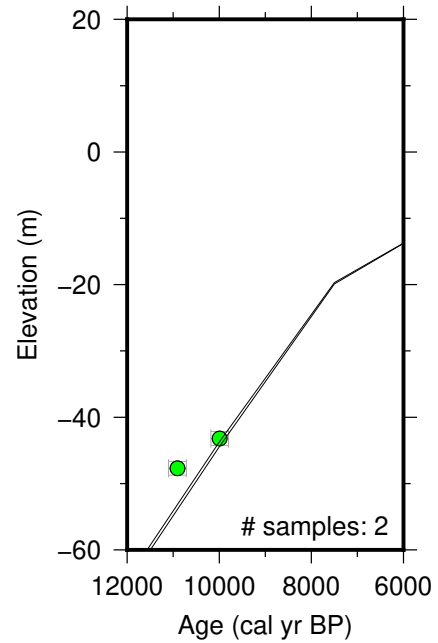
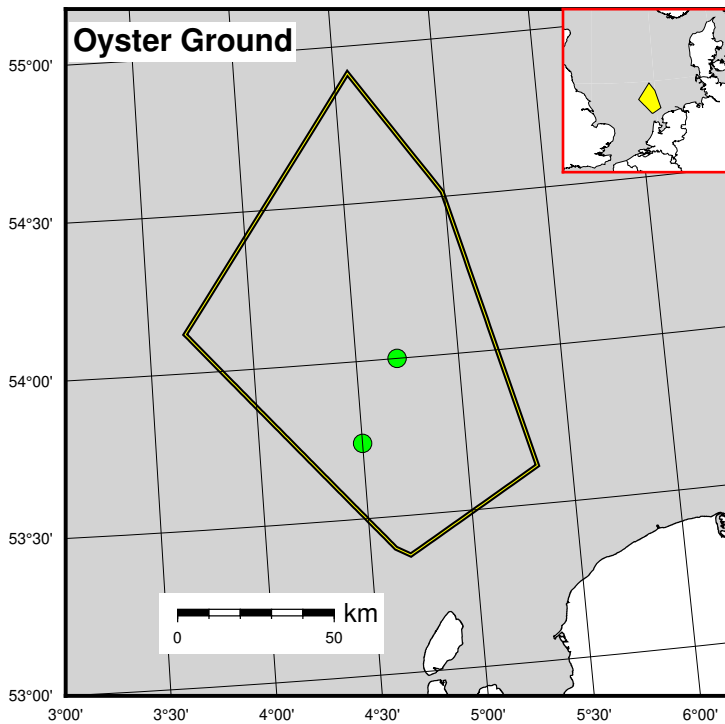


Figure 116: Paleo-sea level and comparison of six models for subregion North Sea, location Central Netherlands.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point

Reference ice model: 72_73_74_75
Reference Earth Model: ehgr

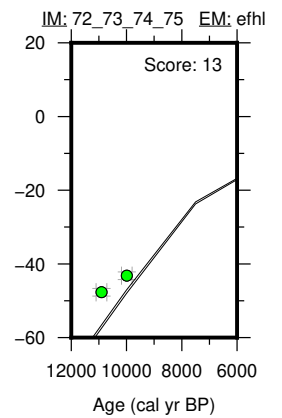
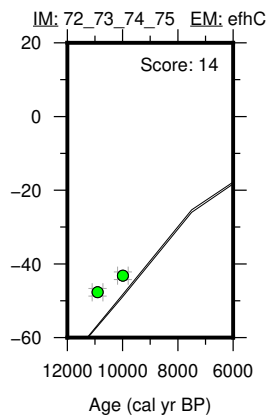
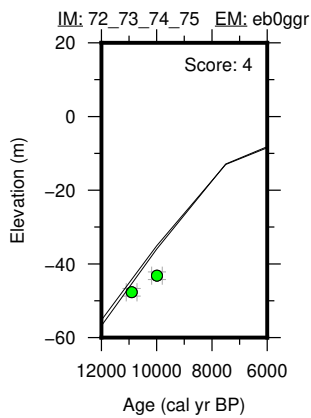
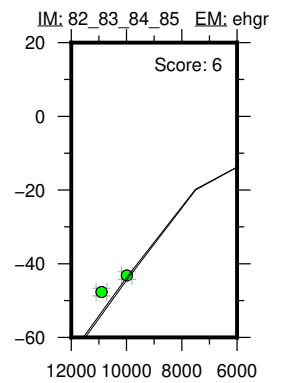
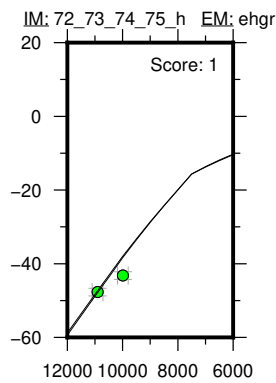
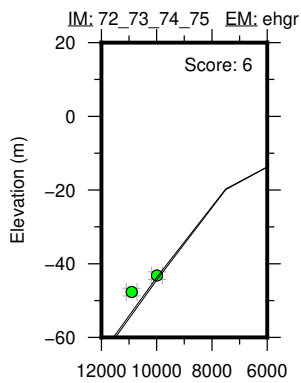
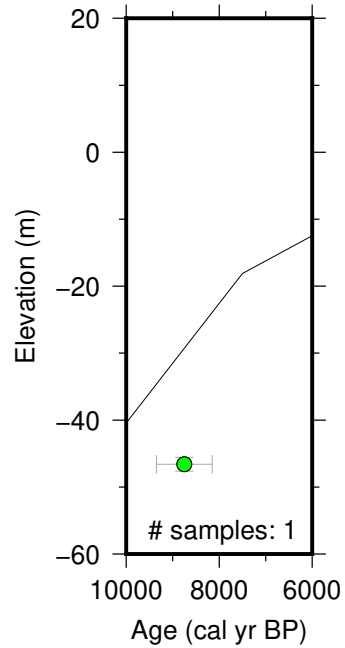
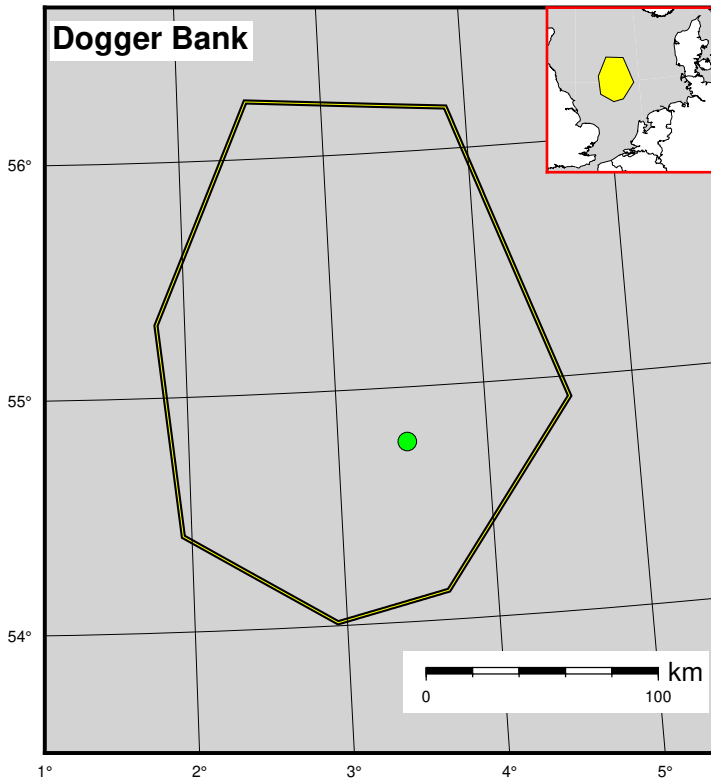


Figure 117: Paleo-sea level and comparison of six models for subregion North Sea, location Oyster Ground.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point

Reference ice model: 72_73_74_75
Reference Earth Model: ehgr

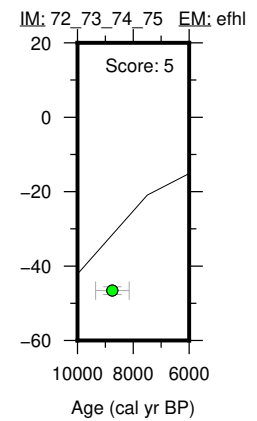
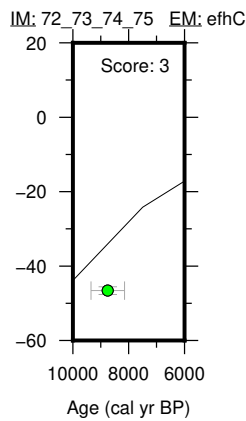
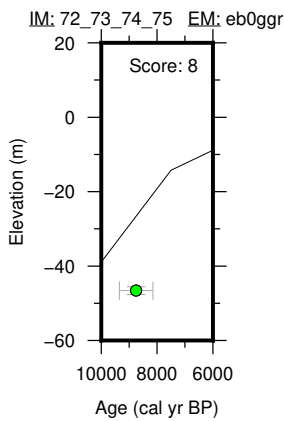
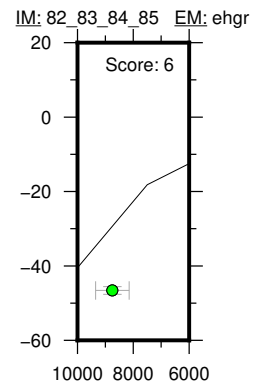
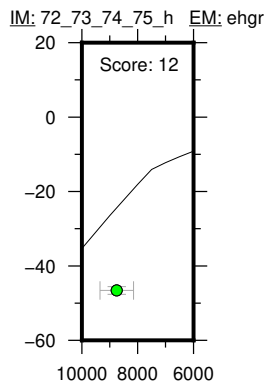
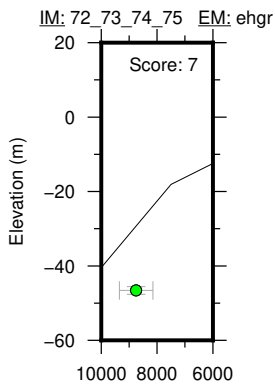


Figure 118: Paleo-sea level and comparison of six models for subregion North Sea, location Dogger Bank.

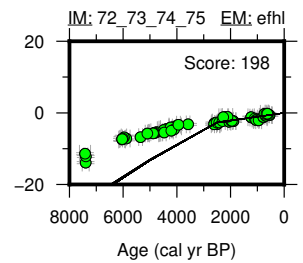
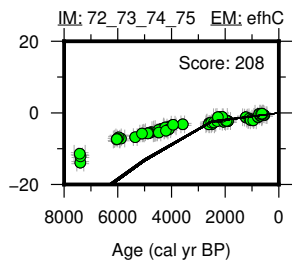
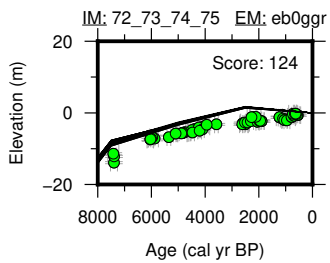
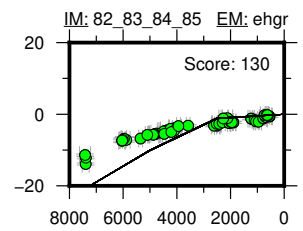
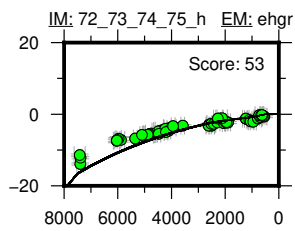
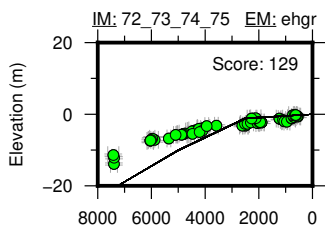
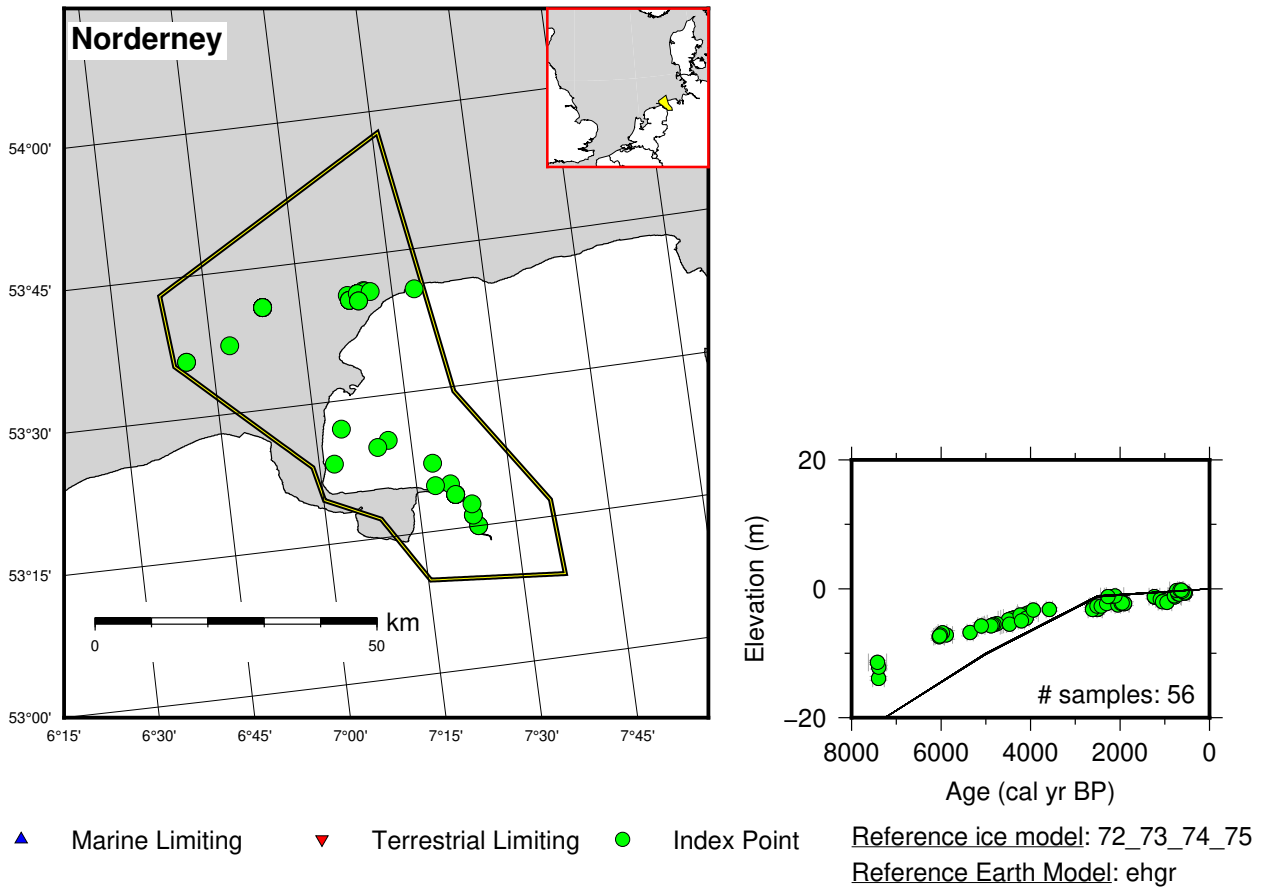


Figure 119: Paleo-sea level and comparison of six models for subregion North Sea, location Norderney.

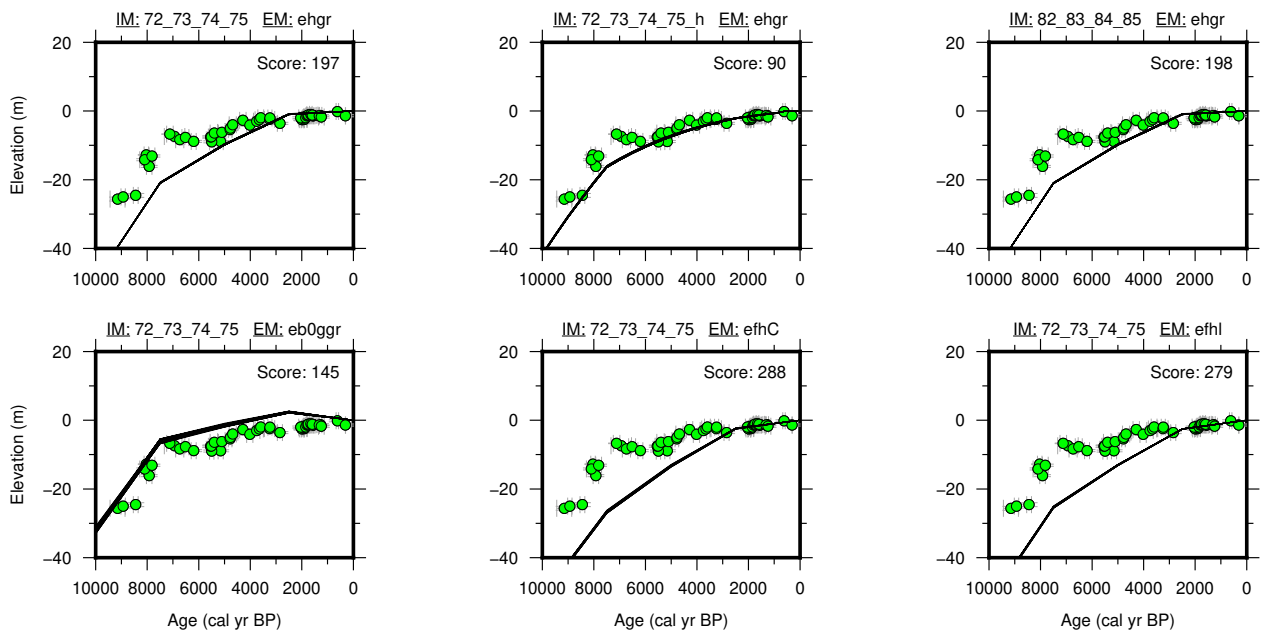
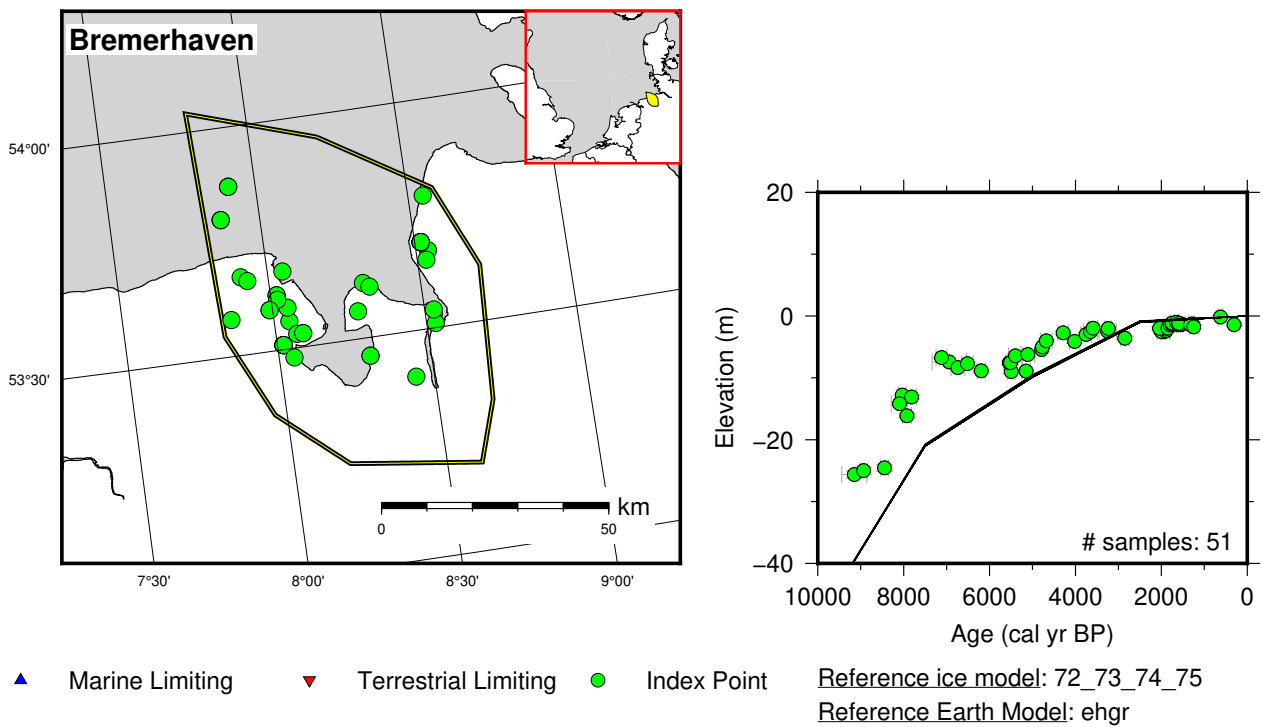
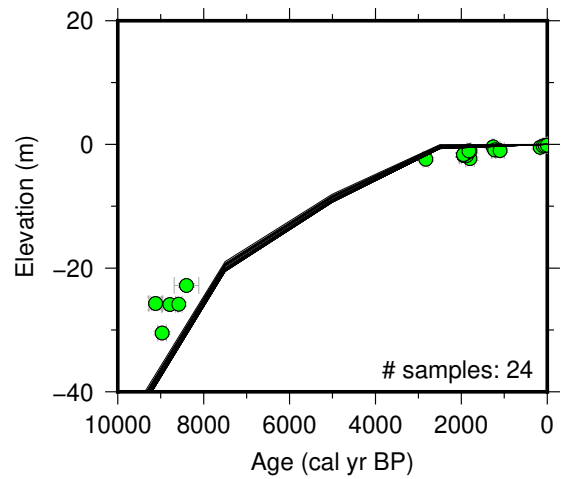
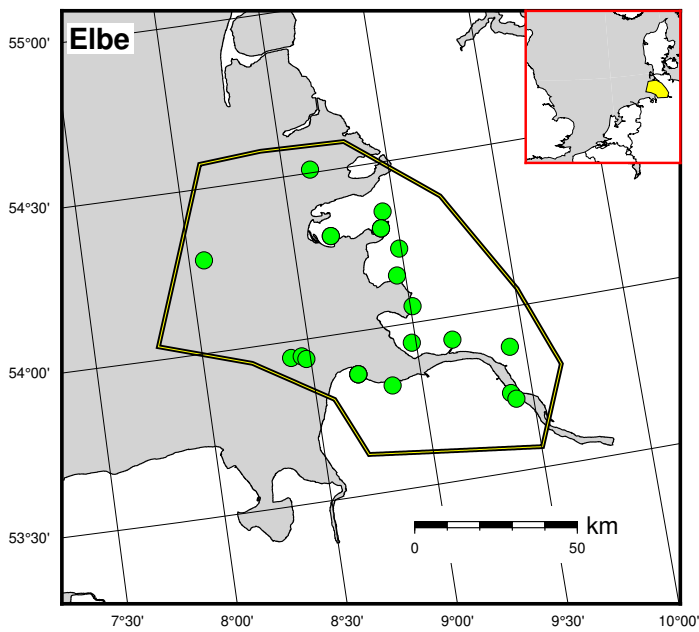


Figure 120: Paleo-sea level and comparison of six models for subregion North Sea, location Bremerhaven.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point Reference ice model: 72_73_74_75
Reference Earth Model: ehgr

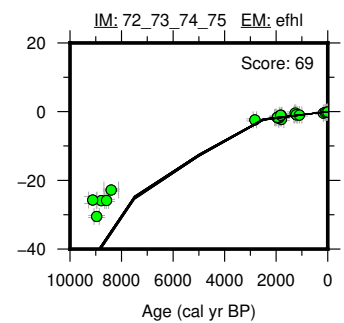
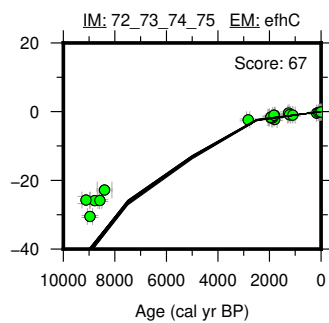
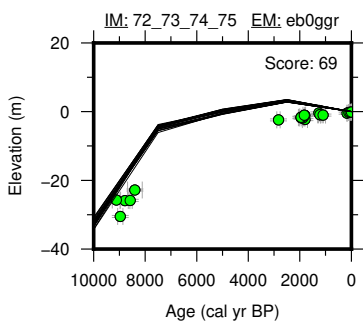
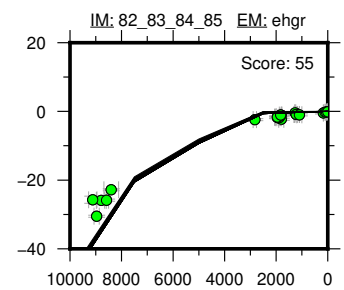
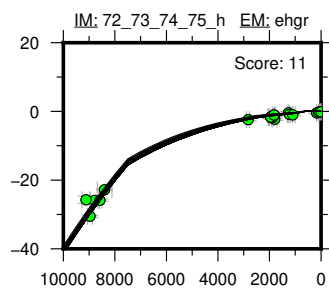
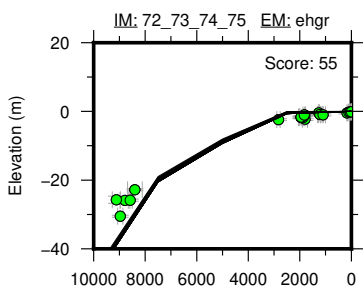


Figure 121: Paleo-sea level and comparison of six models for subregion North Sea, location Elbe.

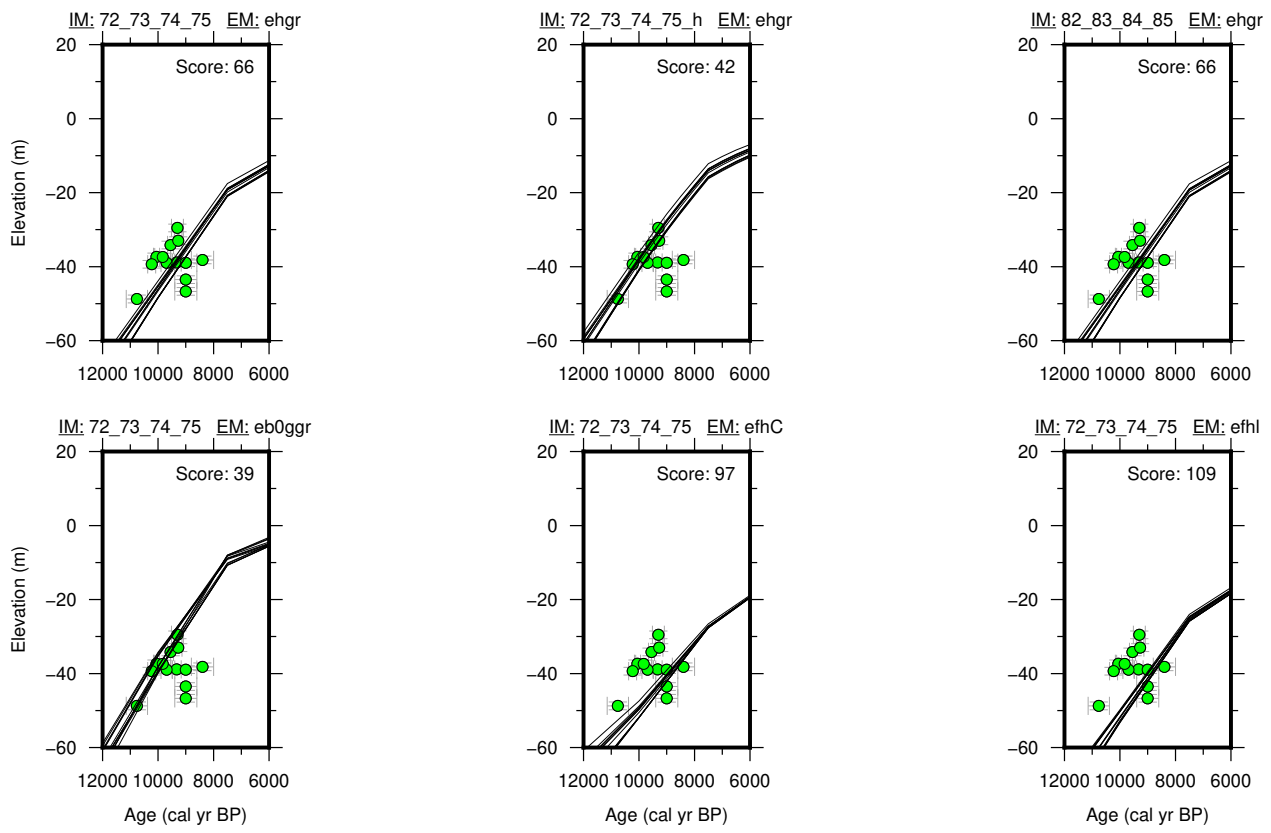
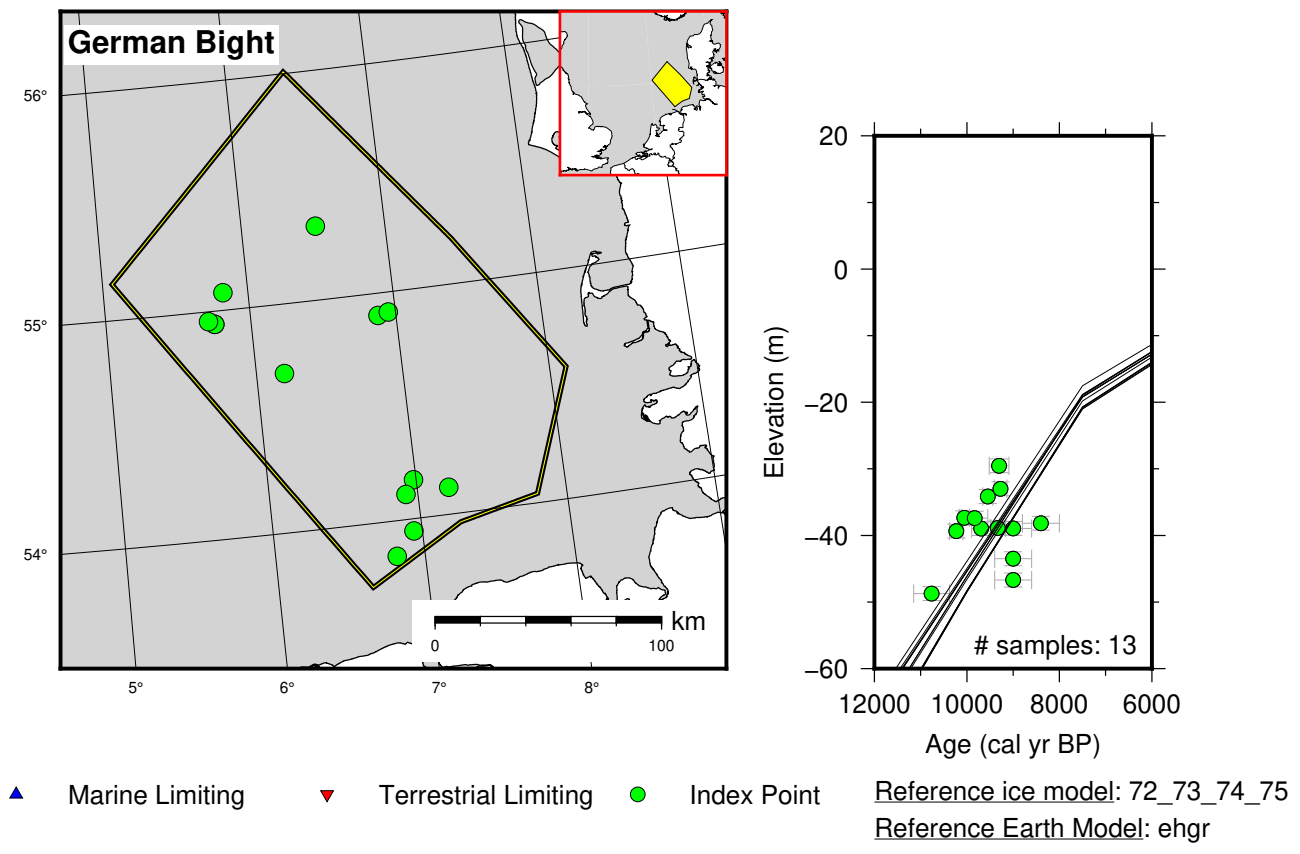
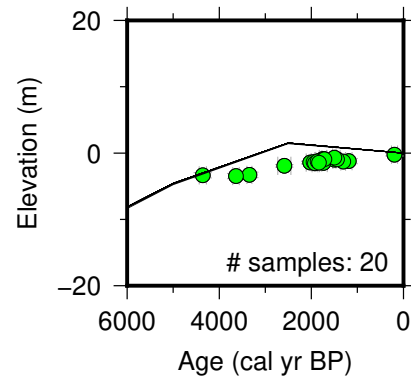
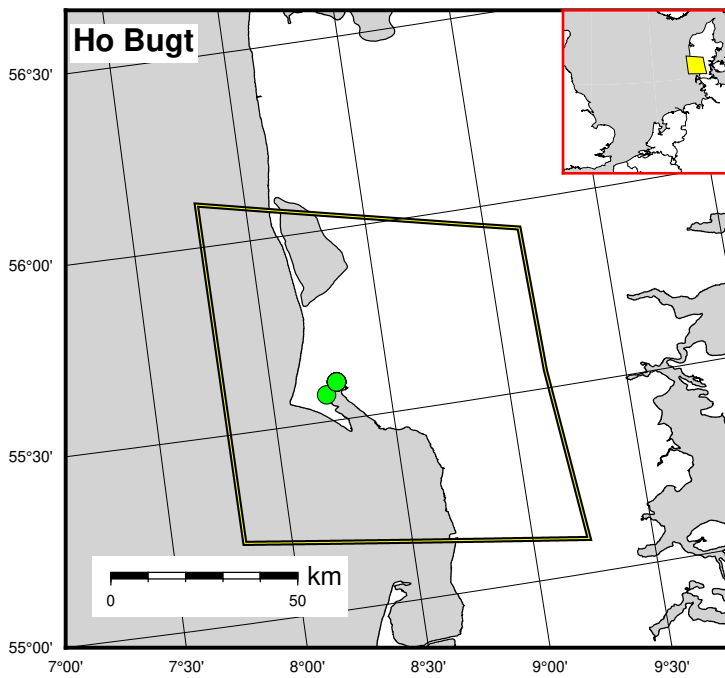


Figure 122: Paleo-sea level and comparison of six models for subregion North Sea, location German Bight.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point

Reference ice model: 72_73_74_75
Reference Earth Model: ehgr

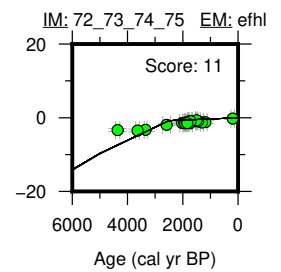
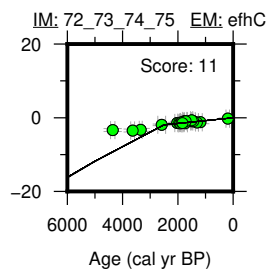
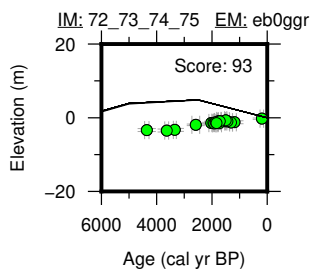
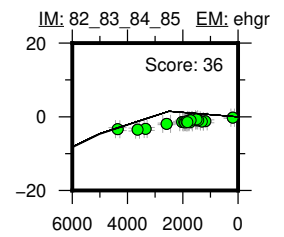
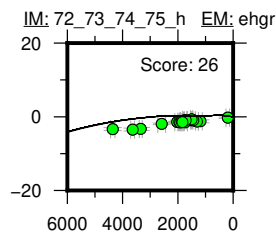
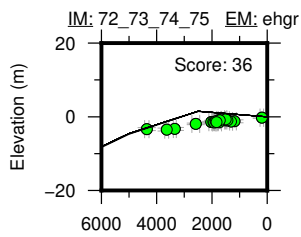


Figure 123: Paleo-sea level and comparison of six models for subregion North Sea, location Ho Bugt.

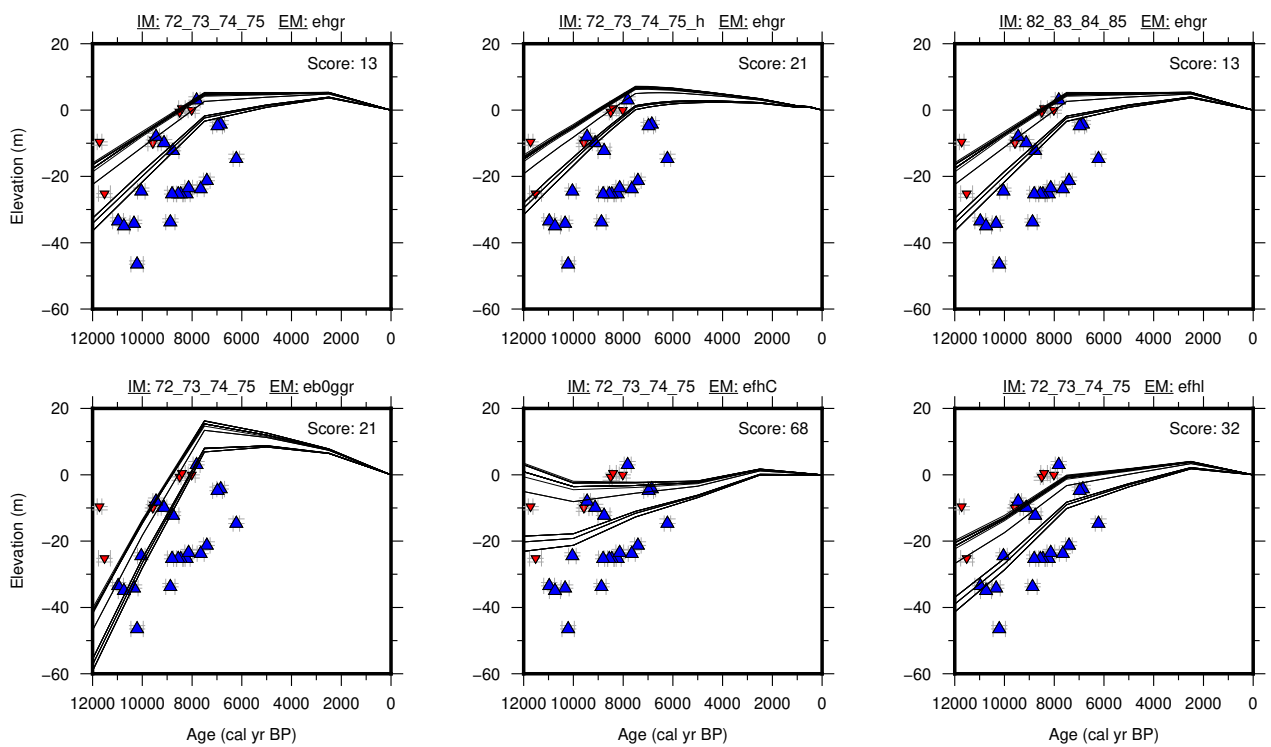
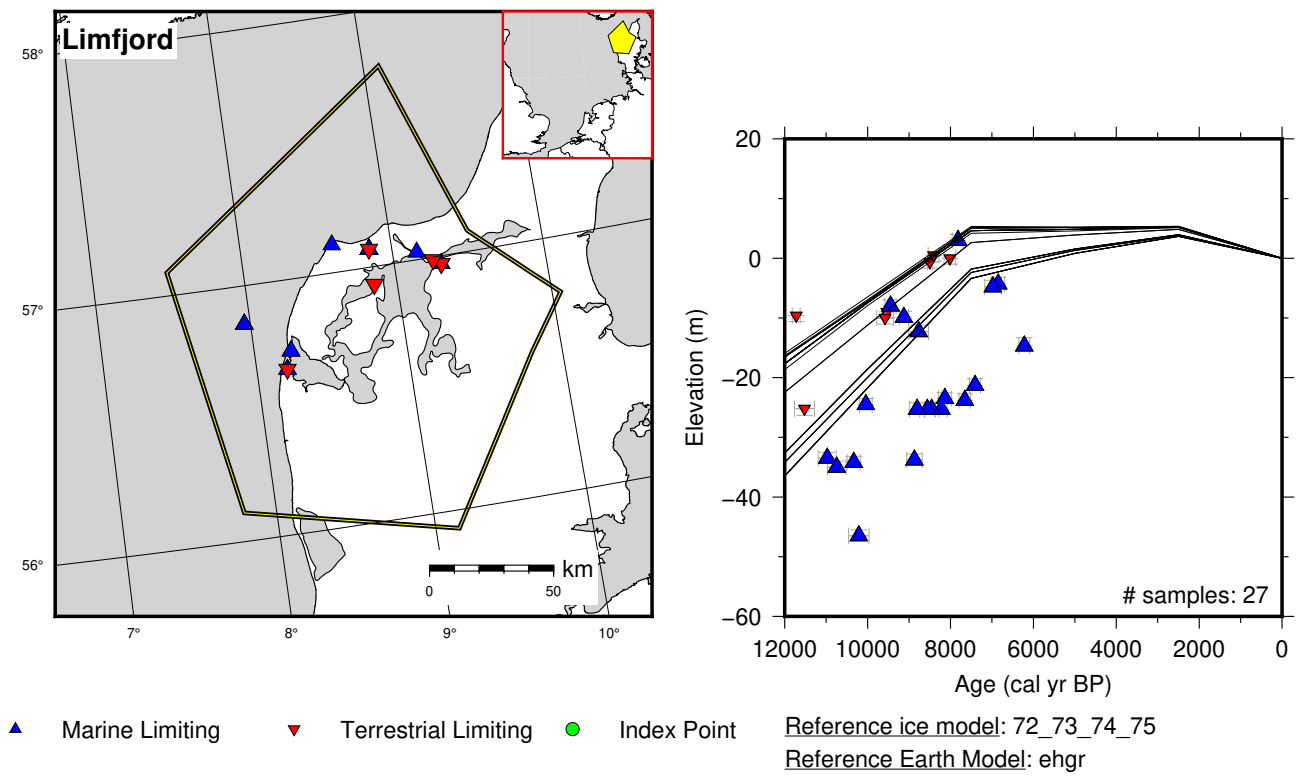


Figure 124: Paleo-sea level and comparison of six models for subregion North Sea, location Limfjord.

9.3 Western Norway

References for the data used in each location.

Stavanger: Helle (2008); Prøsch-Danielsen (2006); Thomsen (1982)

Sotra: Bondevik et al. (2006); Håkansson (1980); Kaland et al. (1984); Krzywinski and Stabell (1984); Lohne et al. (2007); Stabell and Krzywinski (1978, 1979)

Torvikbygd: Helle (2008); Romundset et al. (2010)

Sula: Bondevik et al. (1997a); Hafsten (1979); Lie et al. (1983); Svendsen and Mangerud (1987)

Bjugn: Bondevik et al. (1997a,b); Kjemperud (1982, 1986)

Frosta: Kjemperud (1981a,b, 1986)

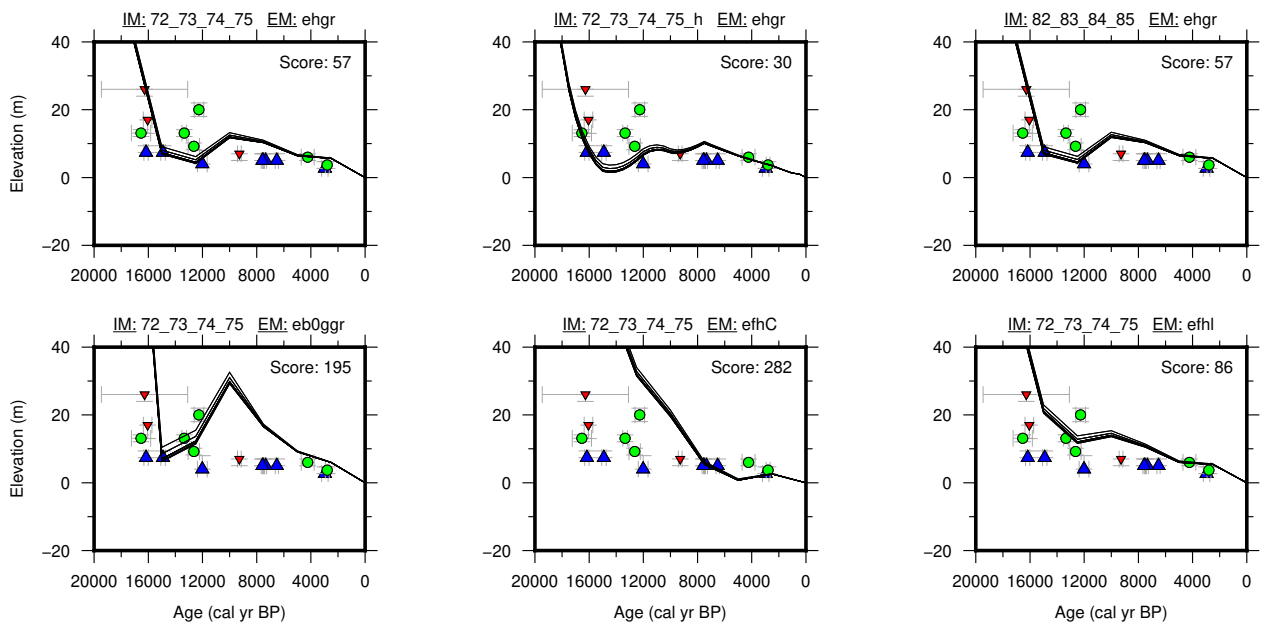
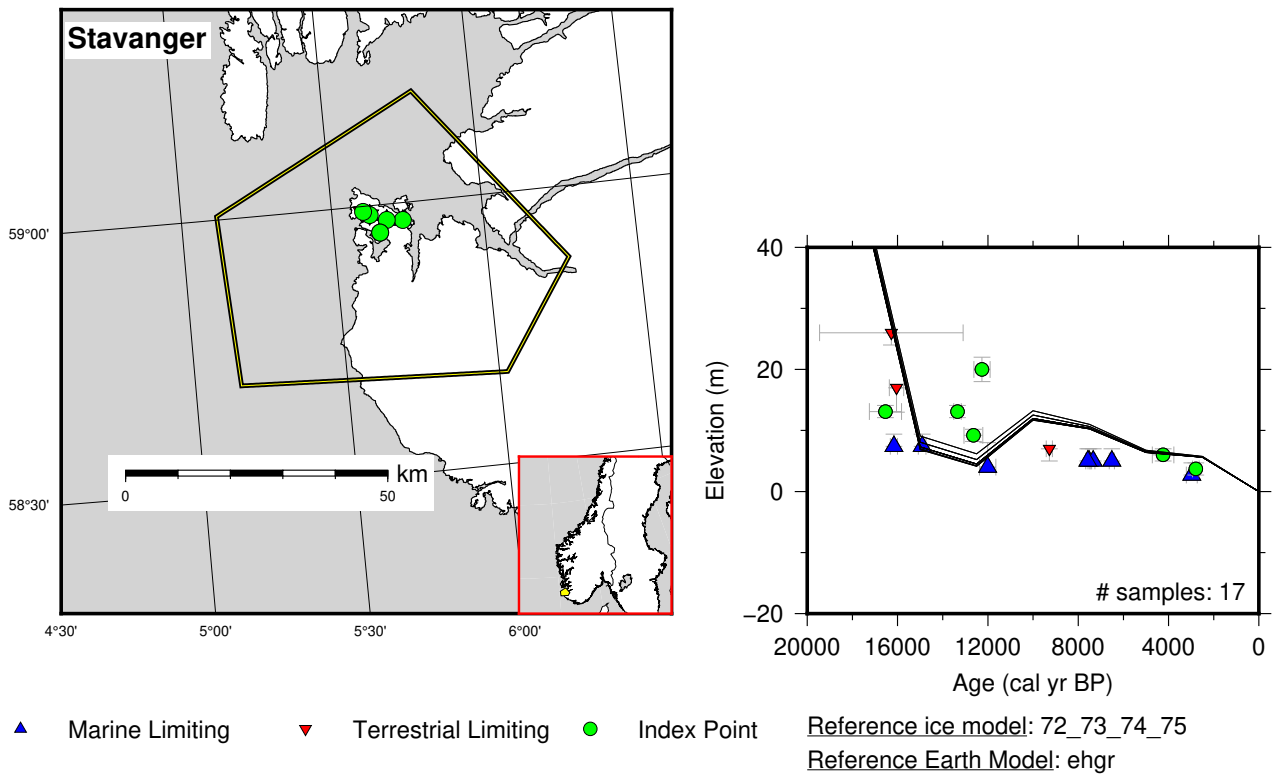


Figure 125: Paleo-sea level and comparison of six models for subregion Western Norway, location Stavanger.

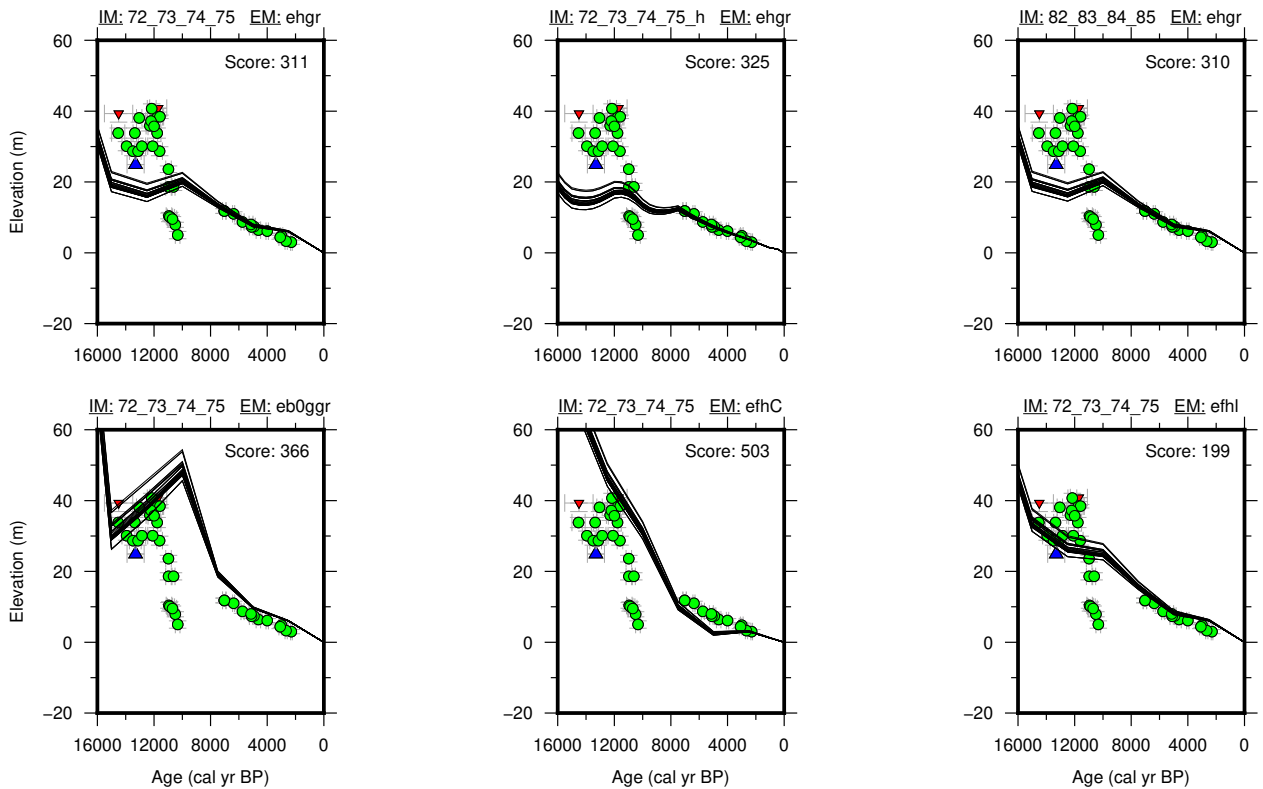
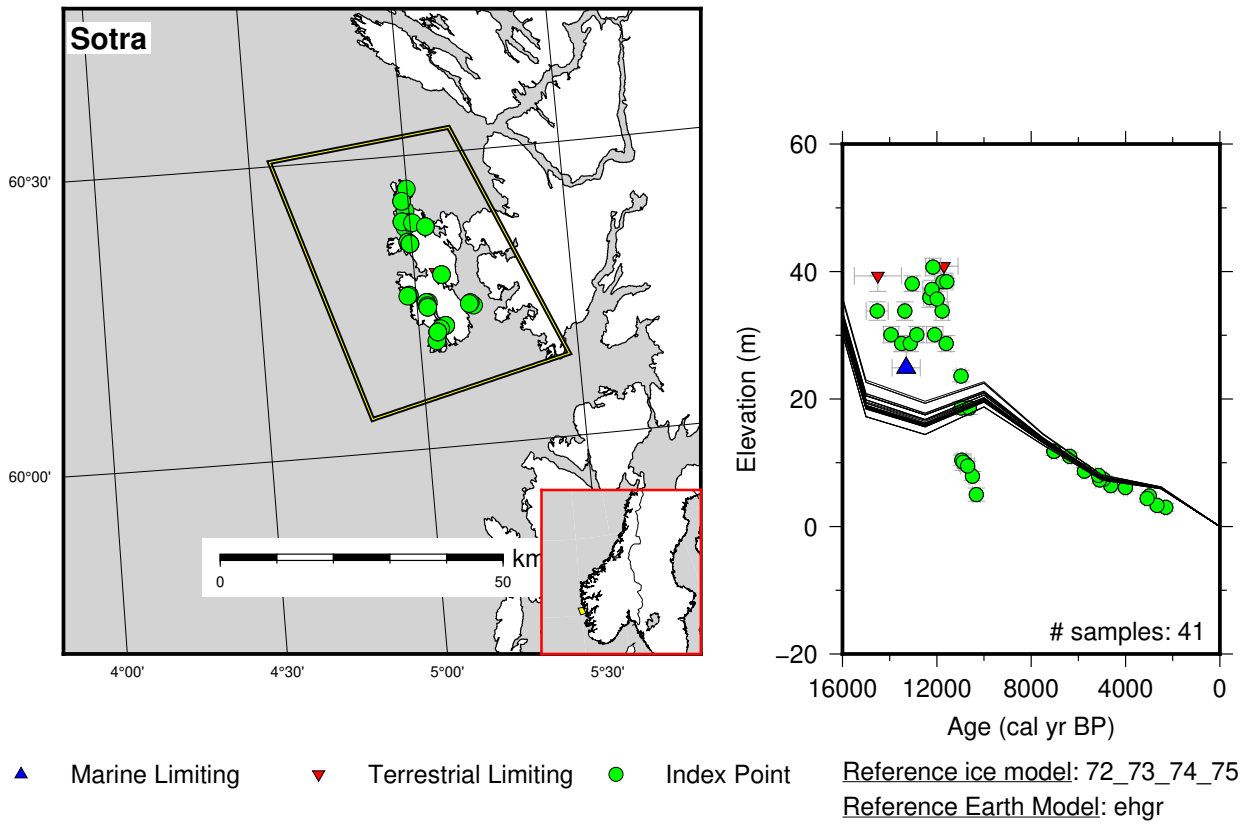
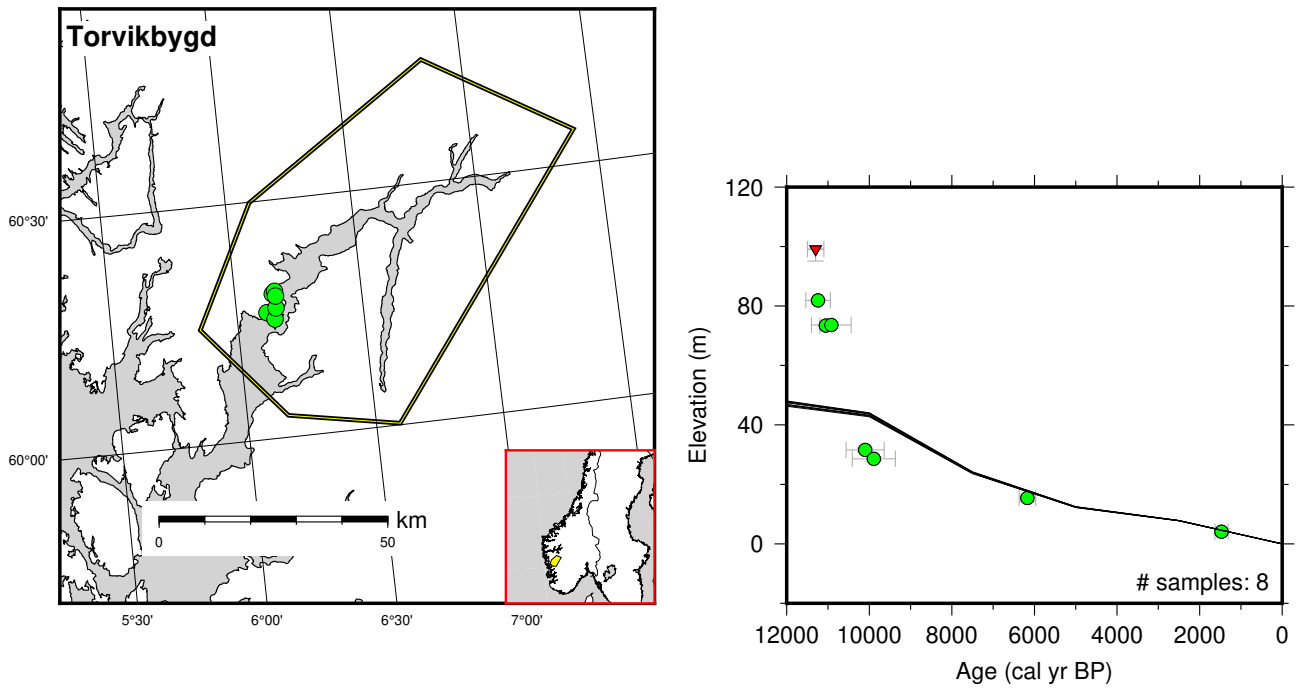


Figure 126: Paleo-sea level and comparison of six models for subregion Western Norway, location Sotra.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point Reference ice model: 72_73_74_75
 Reference Earth Model: ehgr

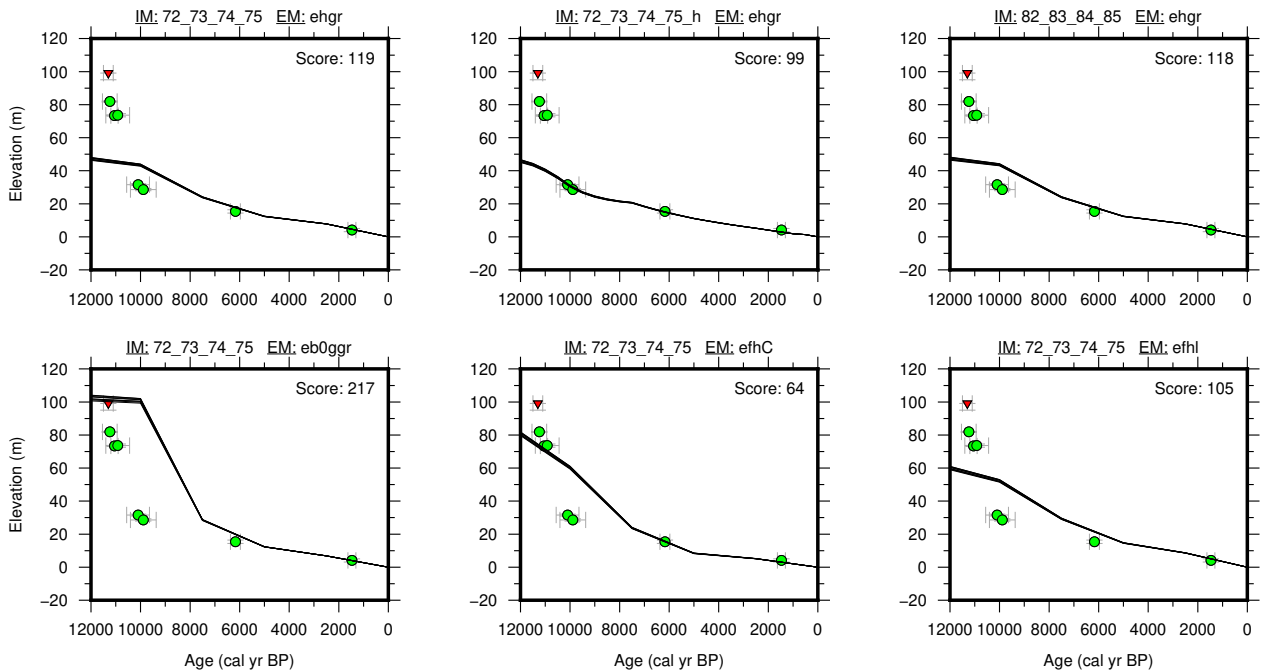
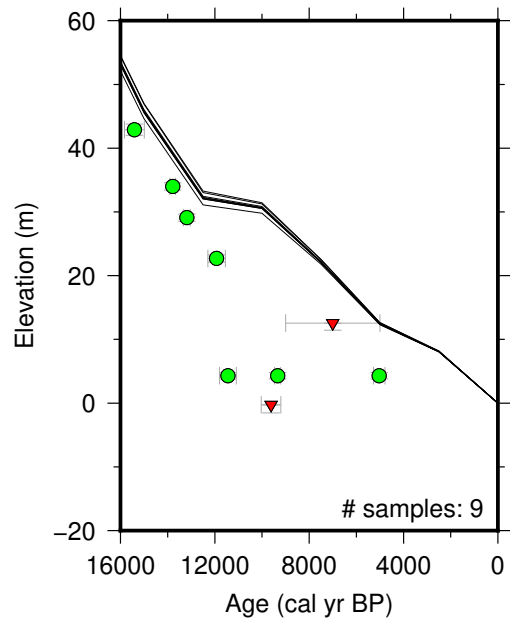
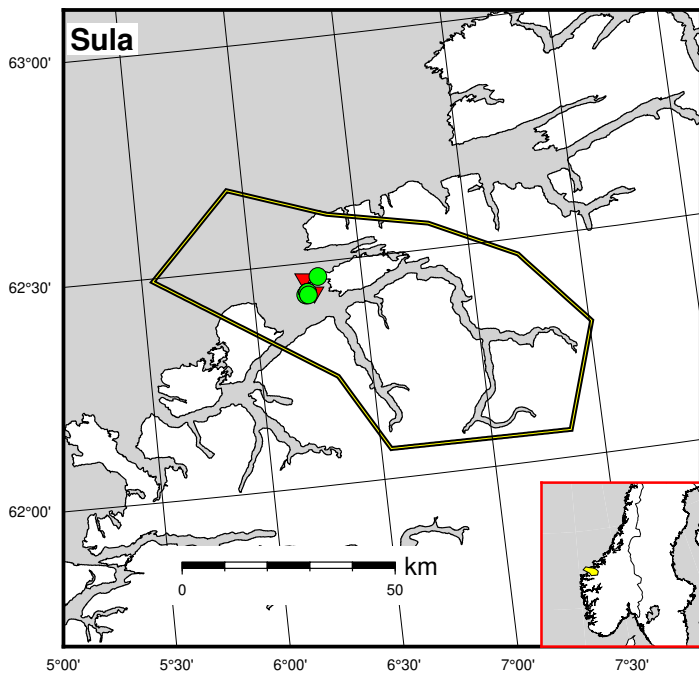


Figure 127: Paleo-sea level and comparison of six models for subregion Western Norway, location Torvikbygd.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point

Reference ice model: 72_73_74_75
Reference Earth Model: ehgr

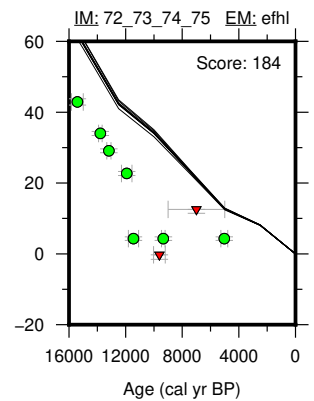
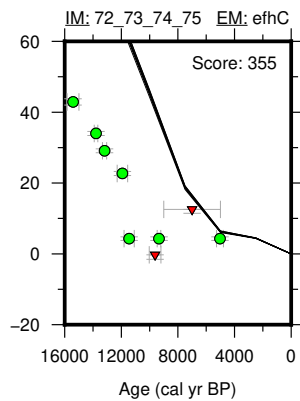
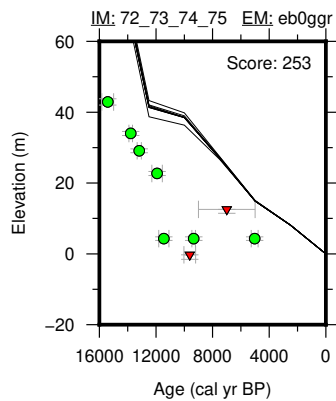
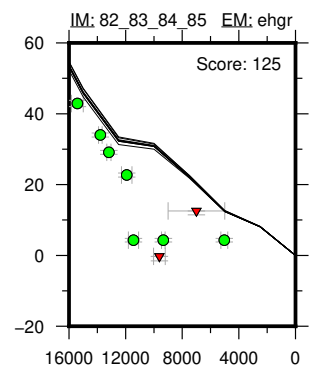
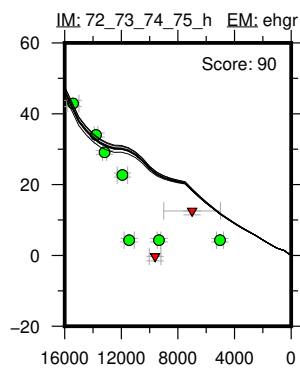
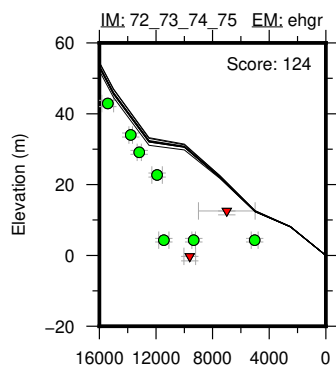
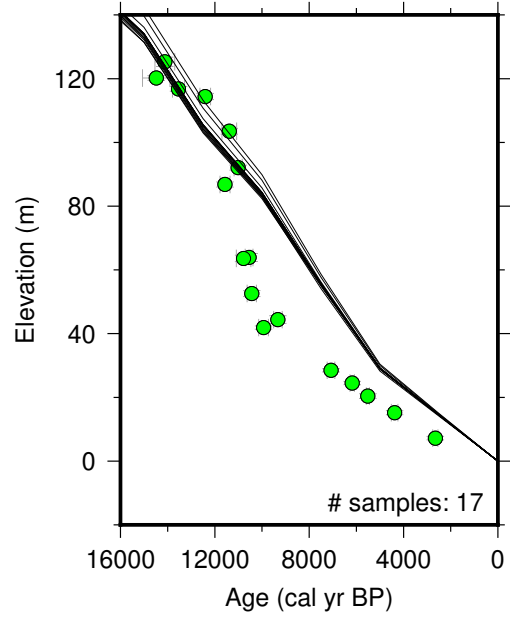
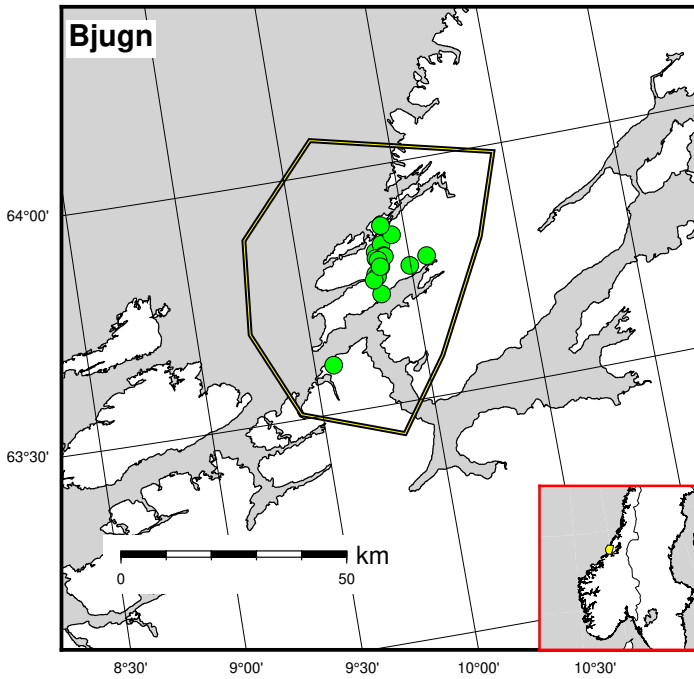


Figure 128: Paleo-sea level and comparison of six models for subregion Western Norway, location Sula.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point

Reference ice model: 72_73_74_75
Reference Earth Model: ehgr

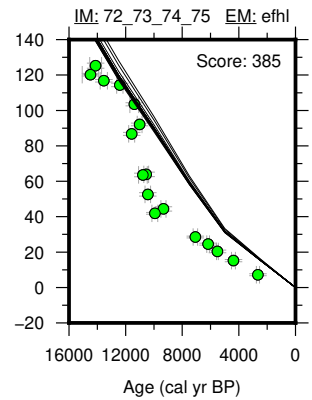
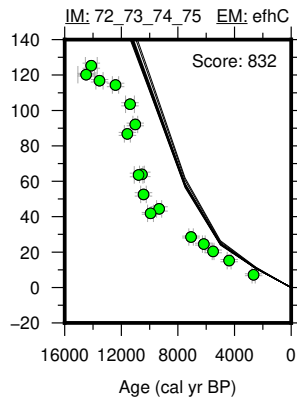
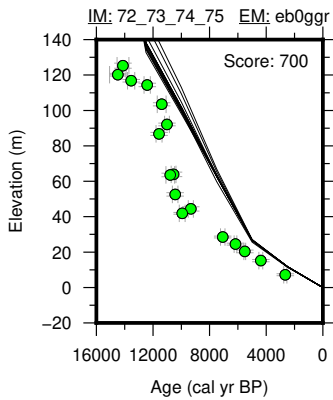
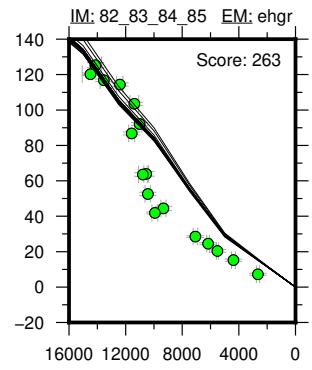
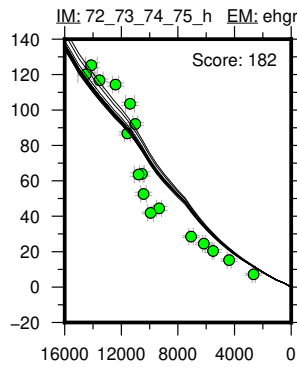
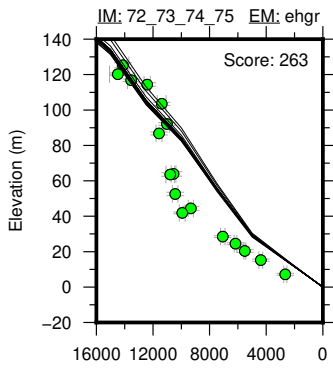
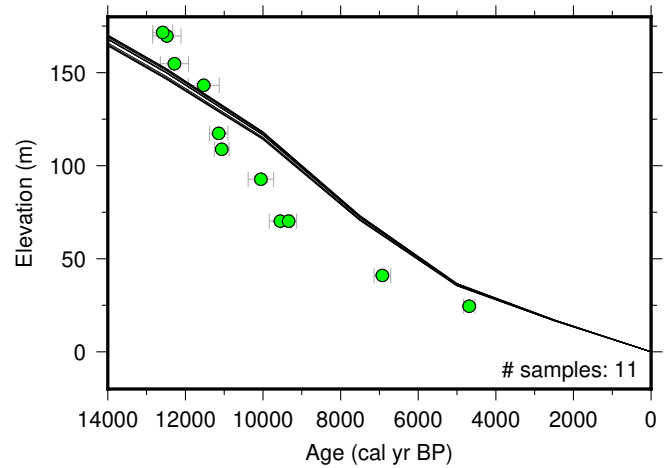
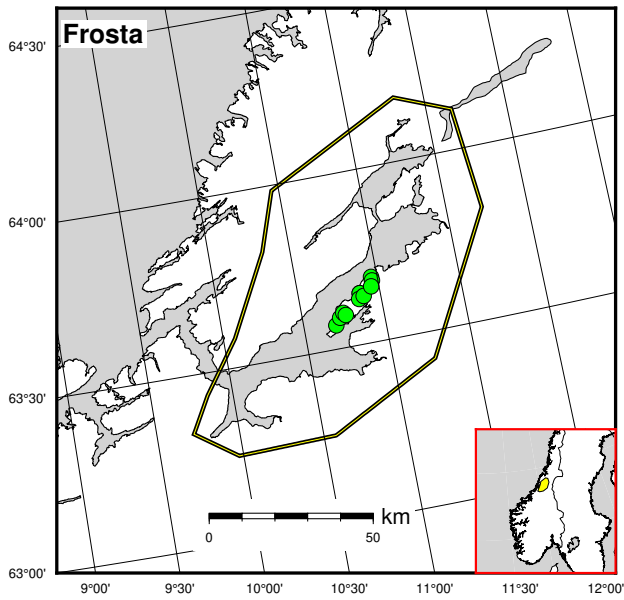


Figure 129: Paleo-sea level and comparison of six models for subregion Western Norway, location Bjugn.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point Reference ice model: 72_73_74_75
 Reference Earth Model: ehgr

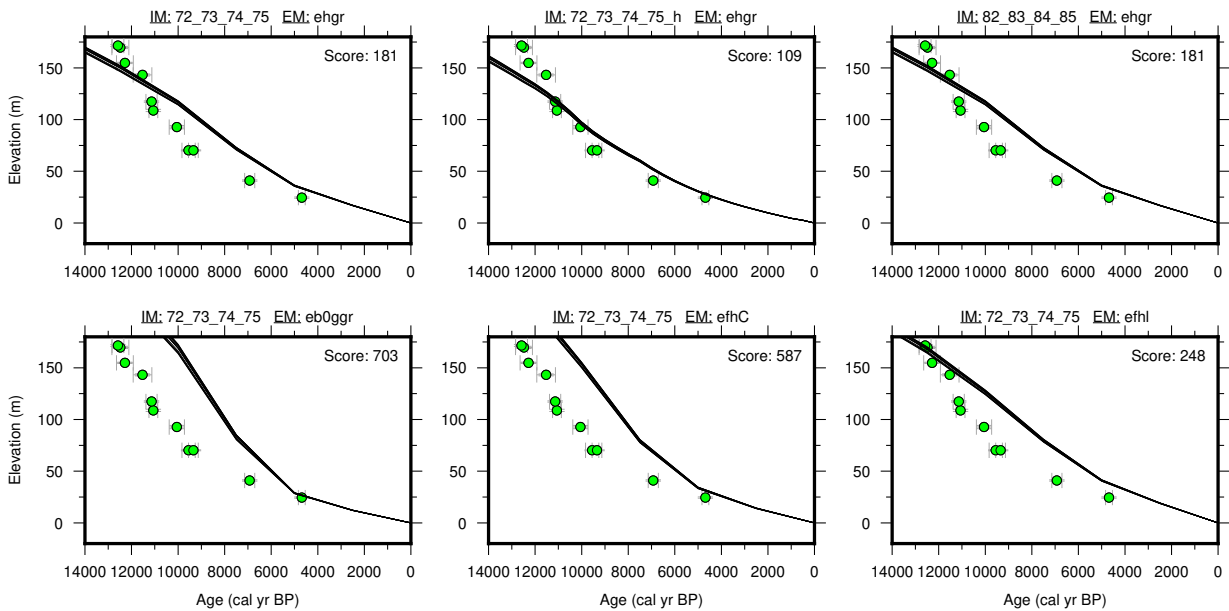


Figure 130: Paleo-sea level and comparison of six models for subregion Western Norway, location Frosta.

10 French Polynesia

10.1 French Polynesia

References for the data used in each location.

Mururoa: Camoin et al. (2001); Hibbert et al. (2016)

Tahiti: Bard et al. (1996, 2010); Deschamps et al. (2012); Hibbert et al. (2016)

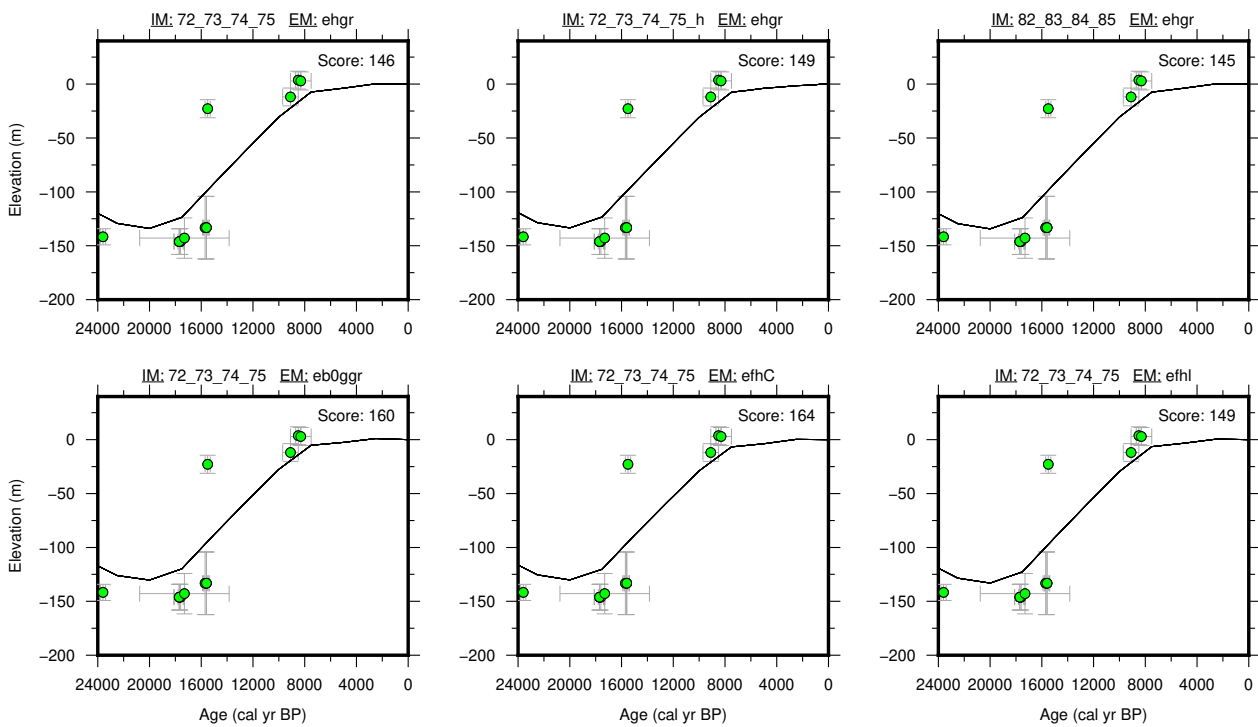
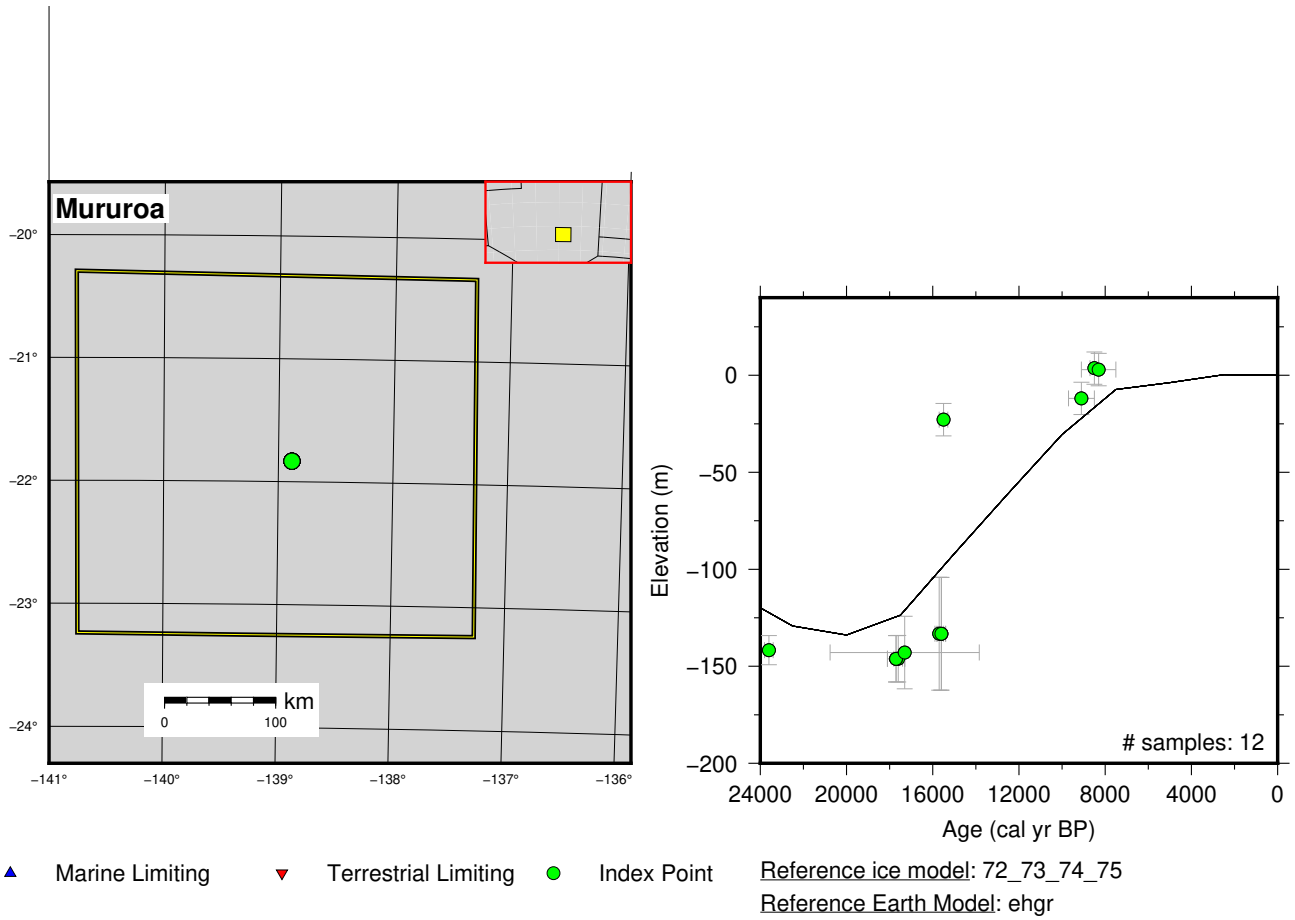
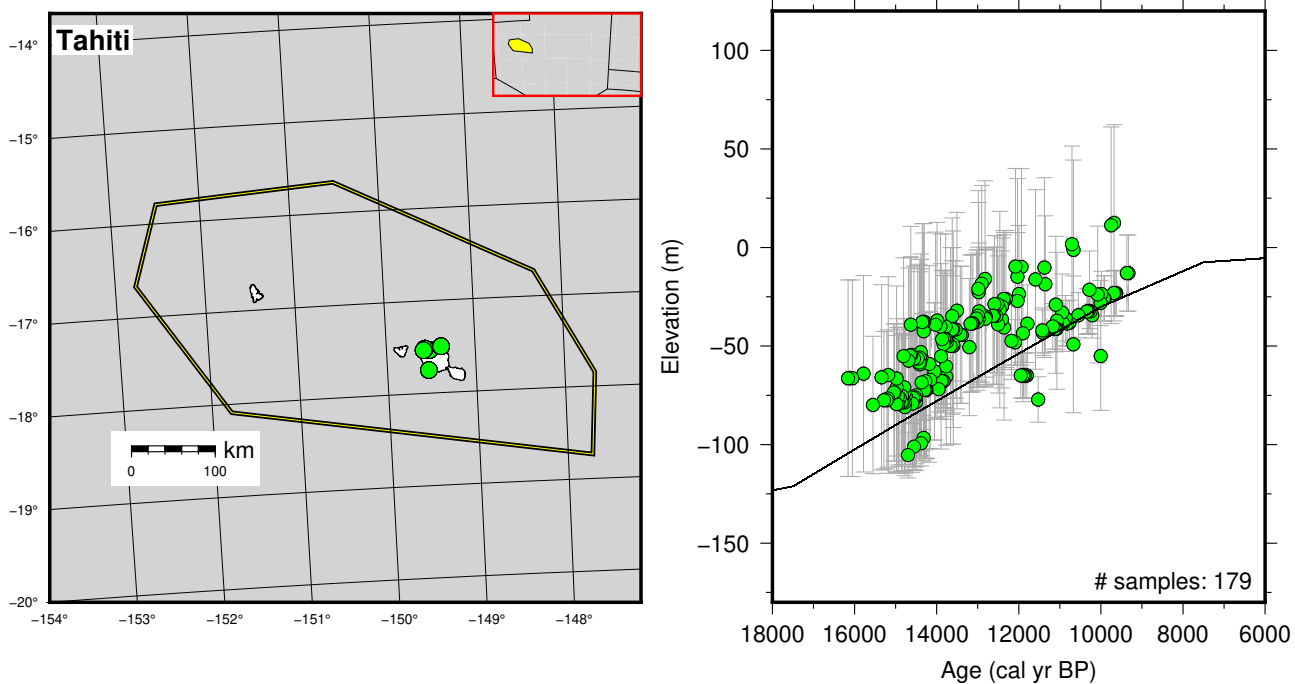


Figure 131: Paleo-sea level and comparison of six models for subregion French Polynesia, location Mururoa.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point Reference ice model: 72_73_74_75
 Reference Earth Model: ehgr

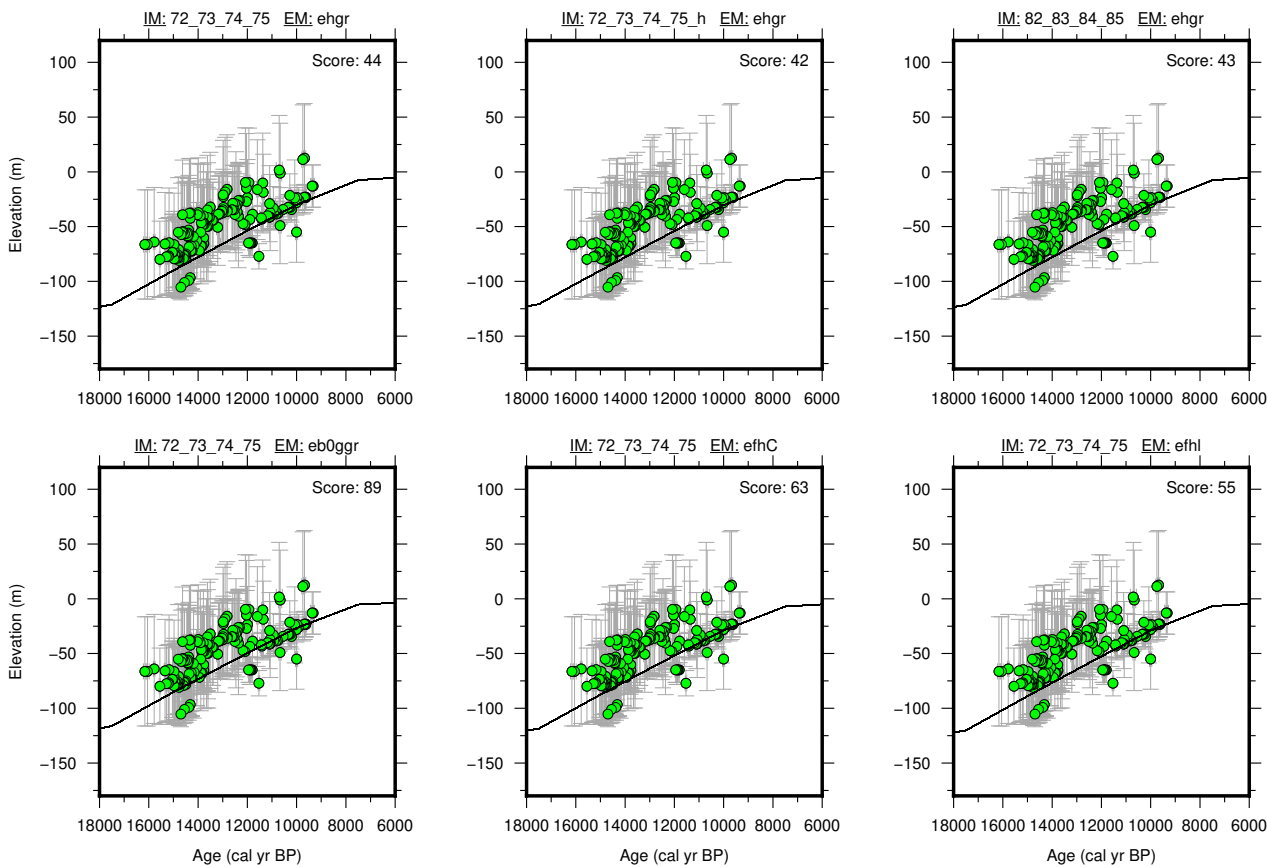


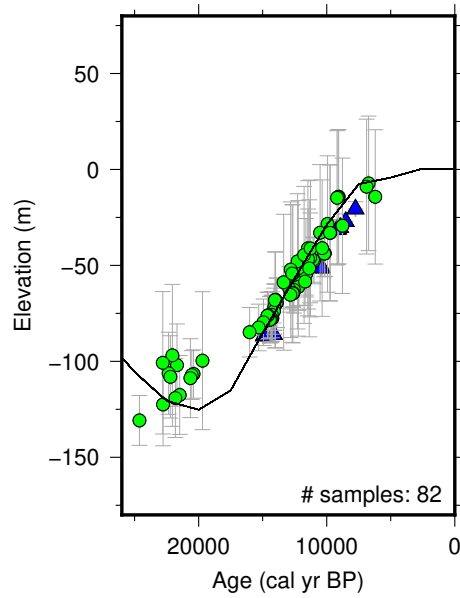
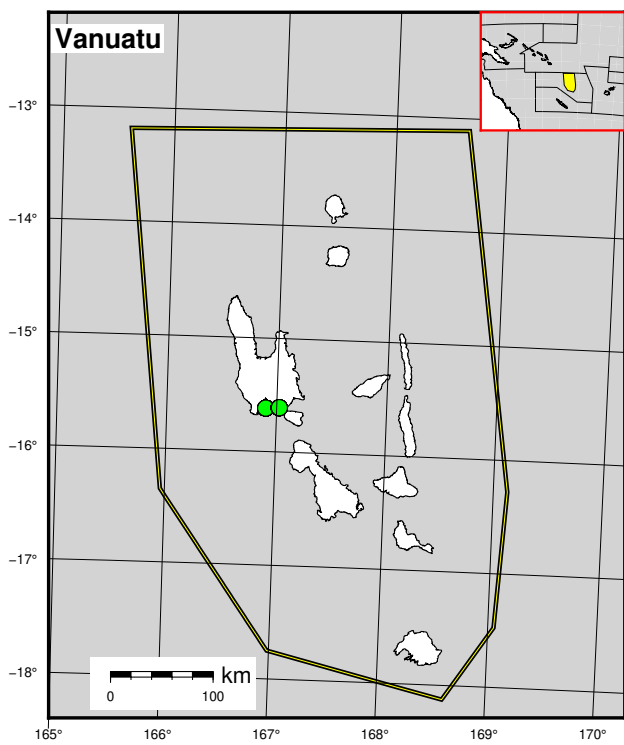
Figure 132: Paleo-sea level and comparison of six models for subregion French Polynesia, location Tahiti.

11 Melanesia

11.1 Melansia

References for the data used in each location.

Vanuatu: Cabioch et al. (2003); Cutler et al. (2004); Hibbert et al. (2016)



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point Reference ice model: 72_73_74_75
 Reference Earth Model: ehgr

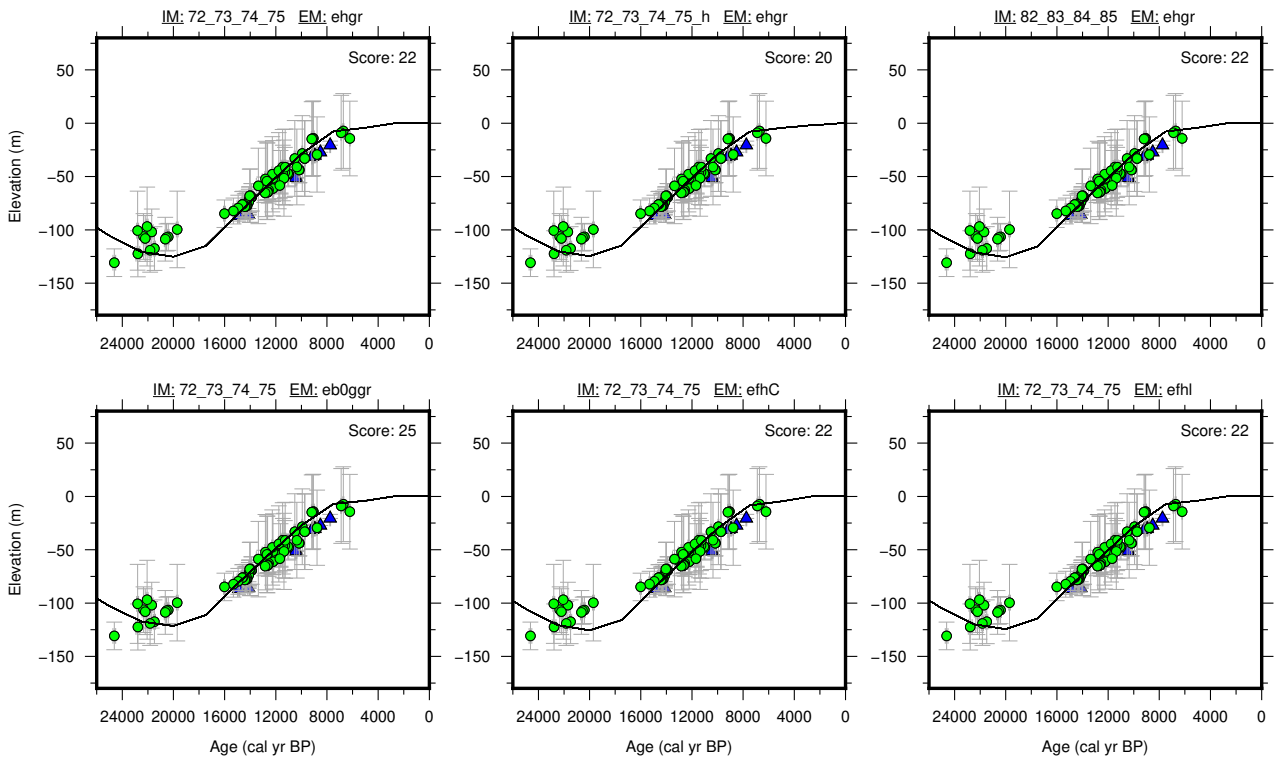


Figure 133: Paleo-sea level and comparison of six models for subregion Melansia, location Vanuatu.

12 MIS 3 - MIS 4

12.1 Eastern United States (MIS3 - MIS4)

References for the data used in each location.

US Mid Atlantic: Best (2010); Cronin et al. (1981); Culver et al. (2011); Mallinson et al. (2008); Mixon et al. (1982); Moore (2009); Parham et al. (2013); Scott (2006)

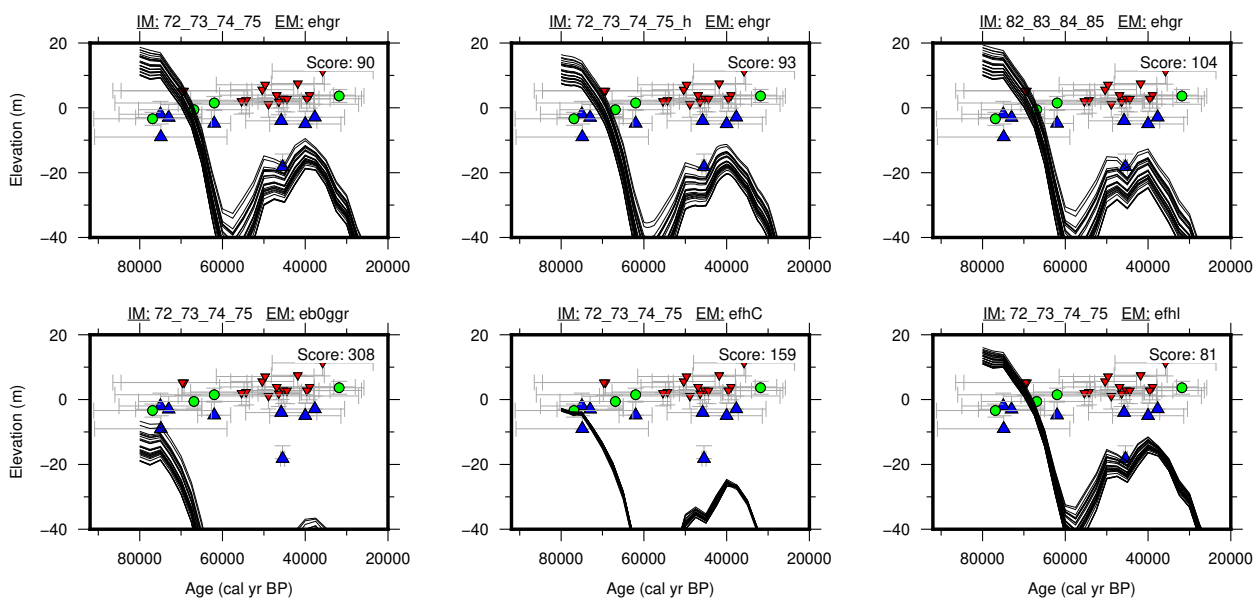
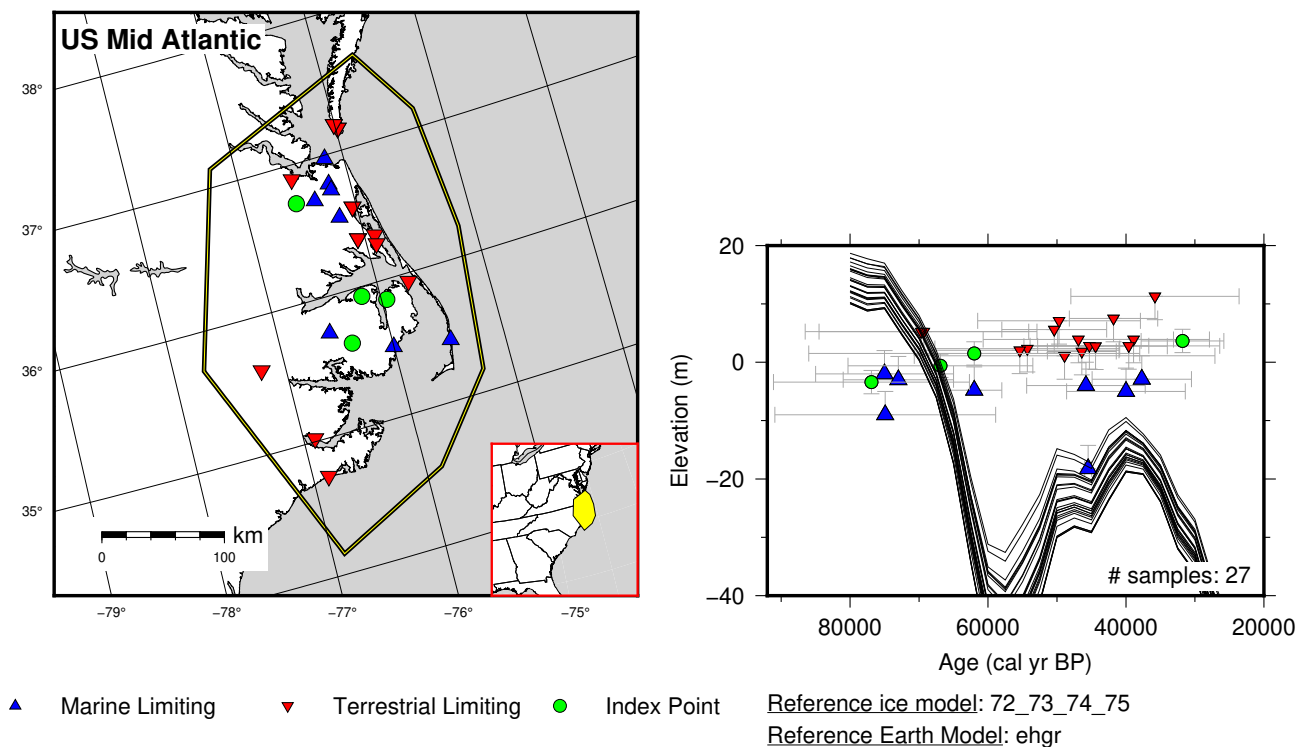


Figure 134: Paleo-sea level and comparison of six models for subregion Eastern United States (MIS3 - MIS4), location US Mid Atlantic.

12.2 French Polynesia (MIS3 - MIS4)

References for the data used in each location.

Mururoa: Camoin et al. (2001); Hibbert et al. (2016)

Tahiti: Hibbert et al. (2016); Thomas et al. (2009)

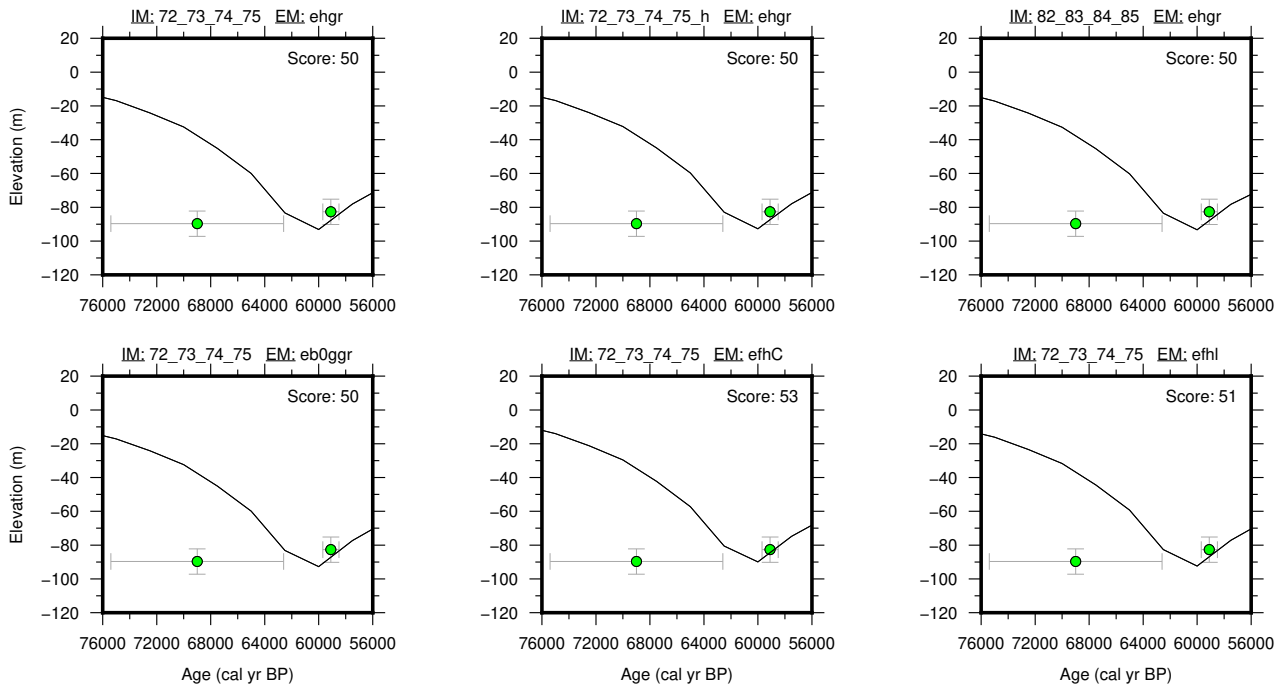
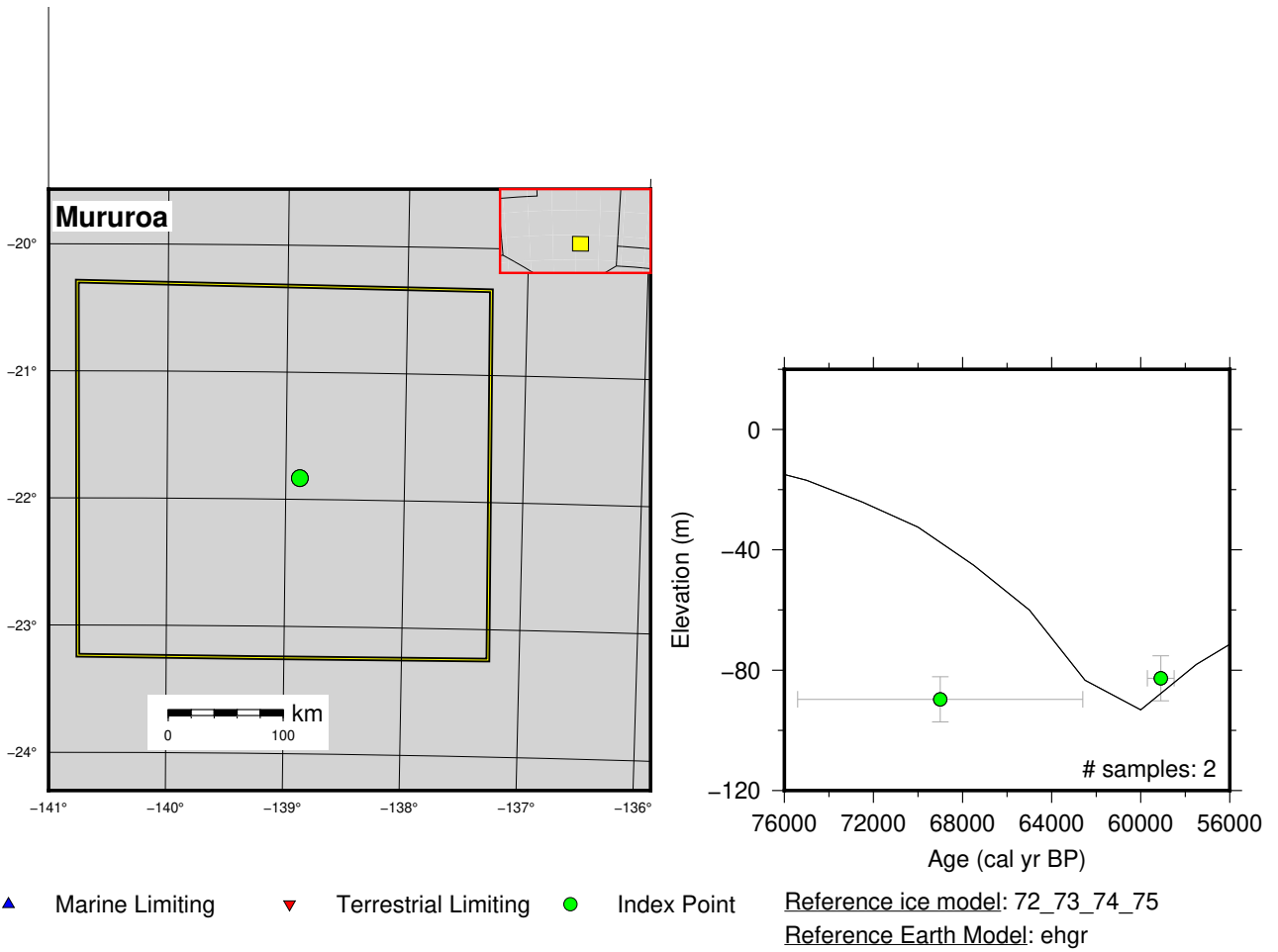
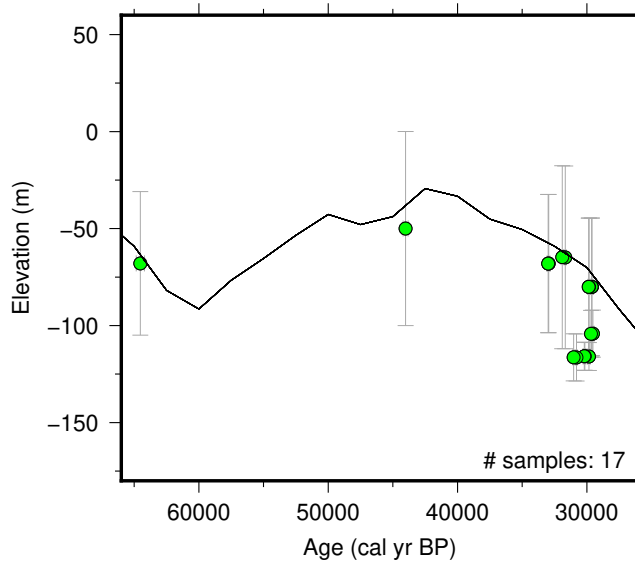
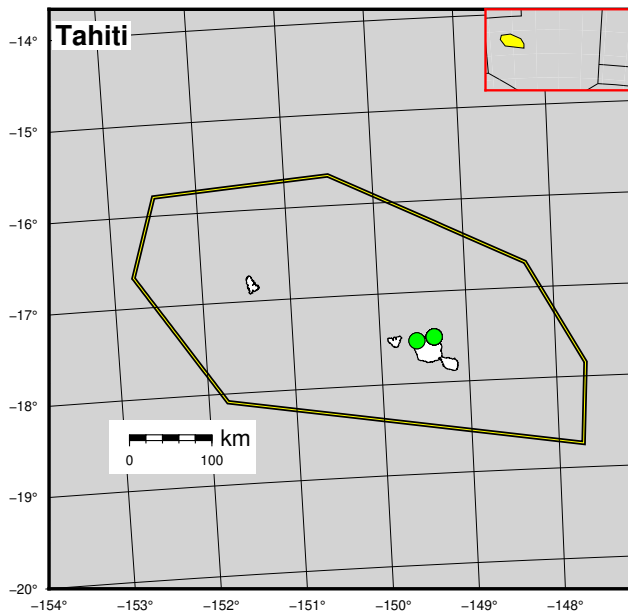


Figure 135: Paleo-sea level and comparison of six models for subregion French Polynesia (MIS3 - MIS4), location Mururoa.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point

Reference ice model: 72_73_74_75
Reference Earth Model: ehgr

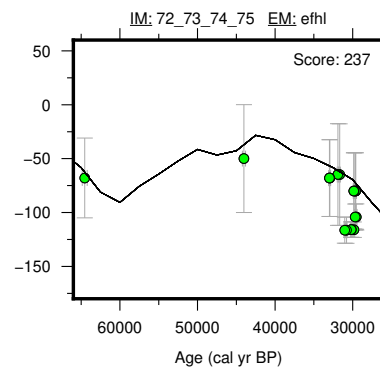
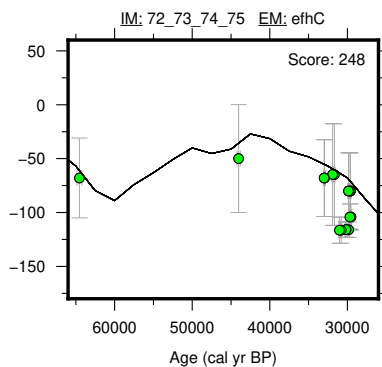
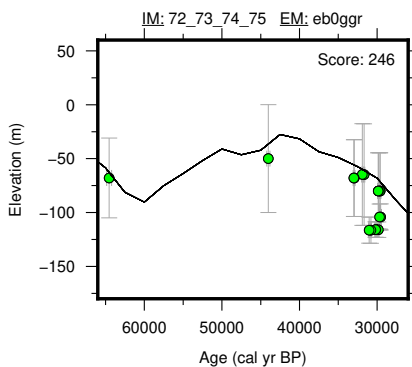
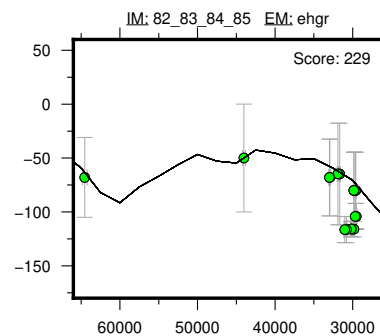
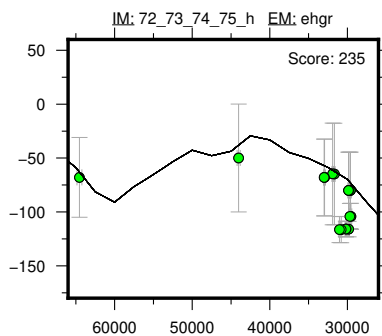
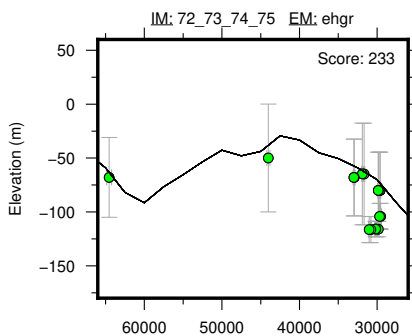
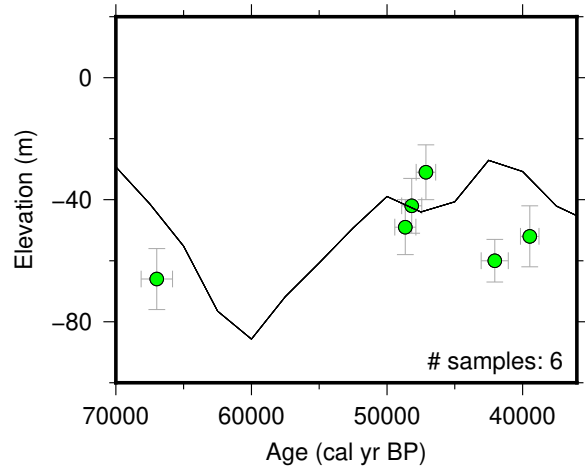
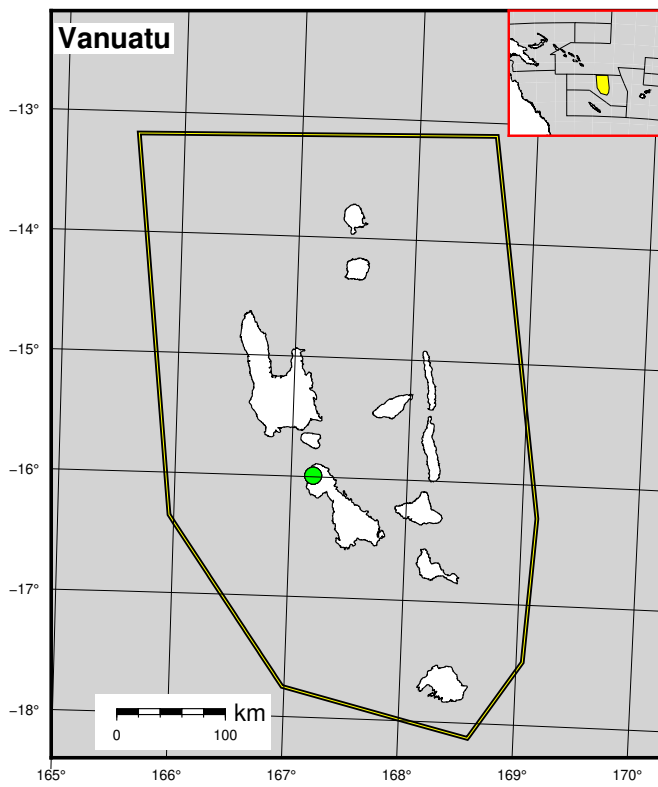


Figure 136: Paleo-sea level and comparison of six models for subregion French Polynesia (MIS3 - MIS4), location Tahiti.

12.3 Melanesia (MIS3 - MIS4)

References for the data used in each location.

Vanuatu: Cabioch and Ayliffe (2001)



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point Reference ice model: 72_73_74_75
 Reference Earth Model: ehgr

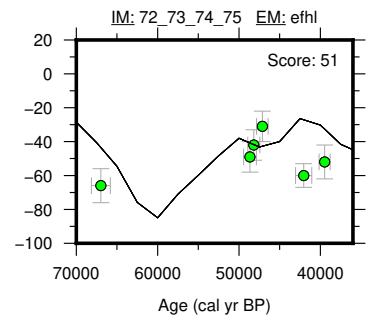
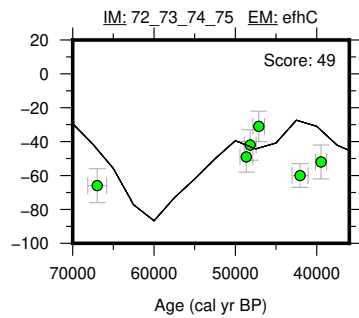
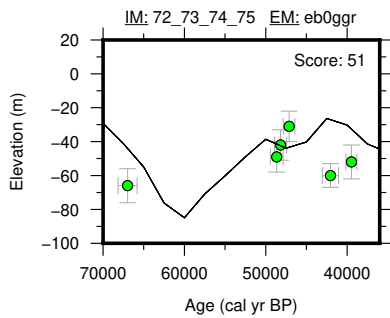
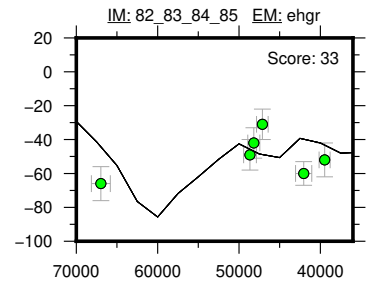
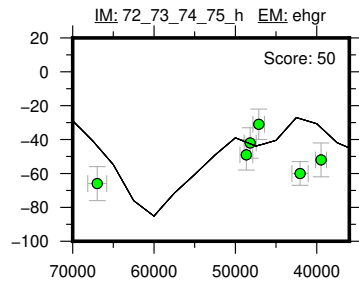
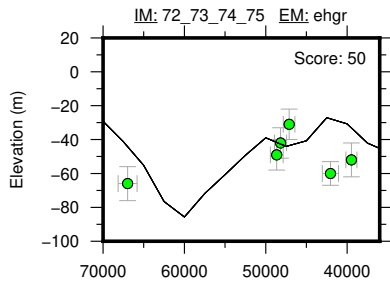


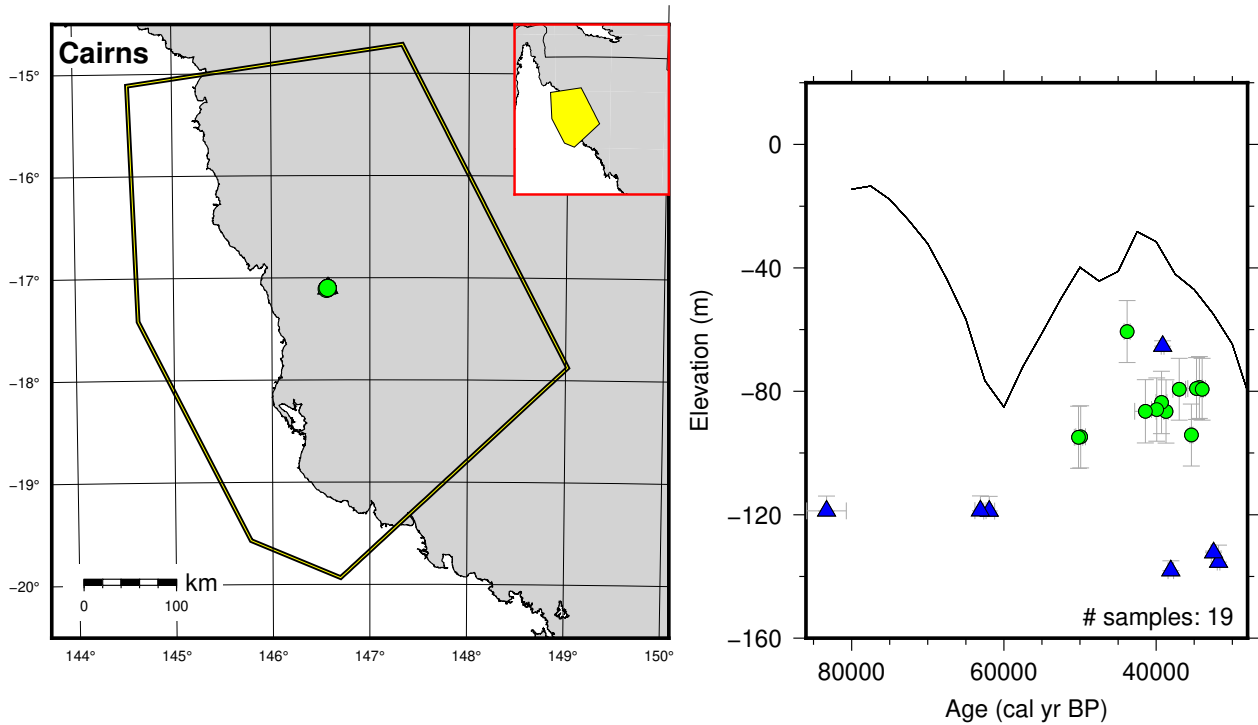
Figure 137: Paleo-sea level and comparison of six models for subregion Melanesia (MIS3 - MIS4), location Vanuatu.

12.4 Northeastern Australia (MIS3 - MIS4)

References for the data used in each location.

Cairns: Yokoyama et al. (2018)

Mackay: Yokoyama et al. (2018)



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point Reference ice model: 72_73_74_75
 Reference Earth Model: ehgr

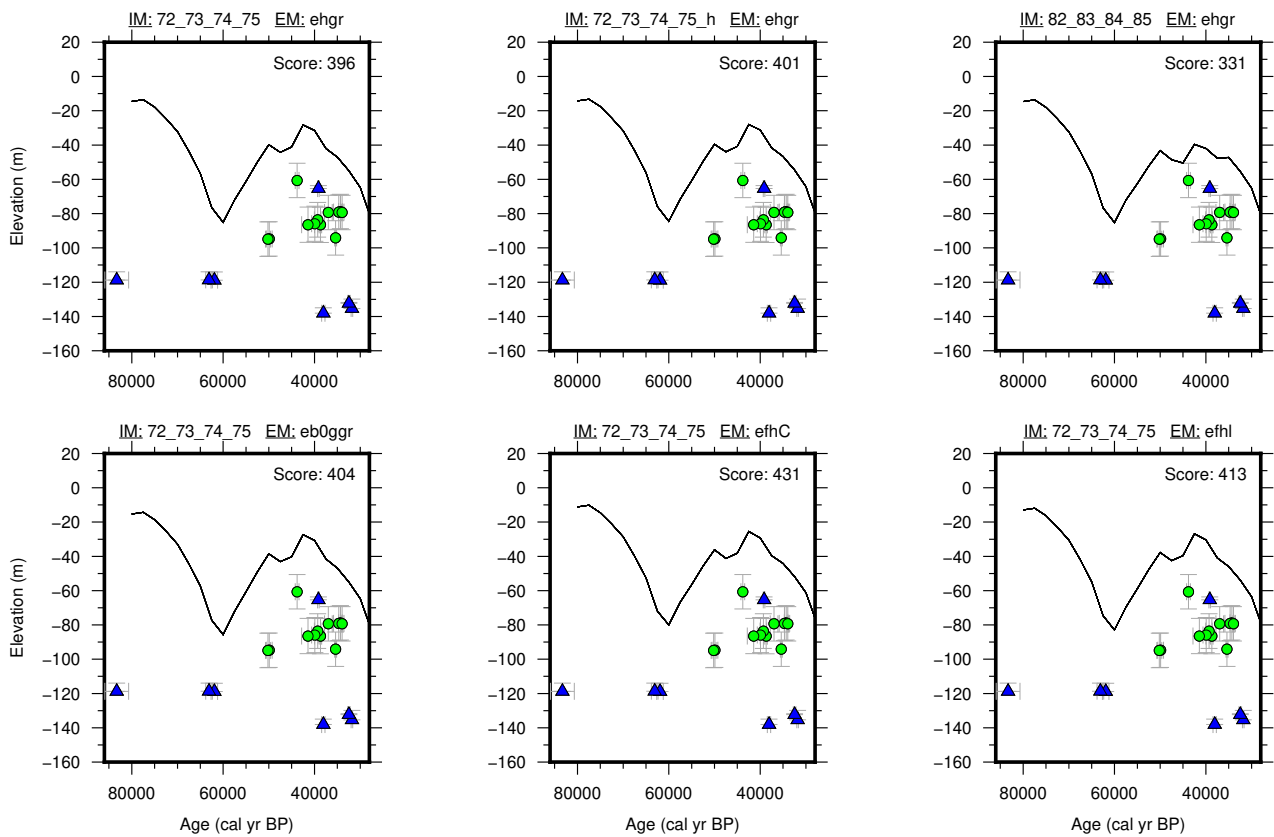
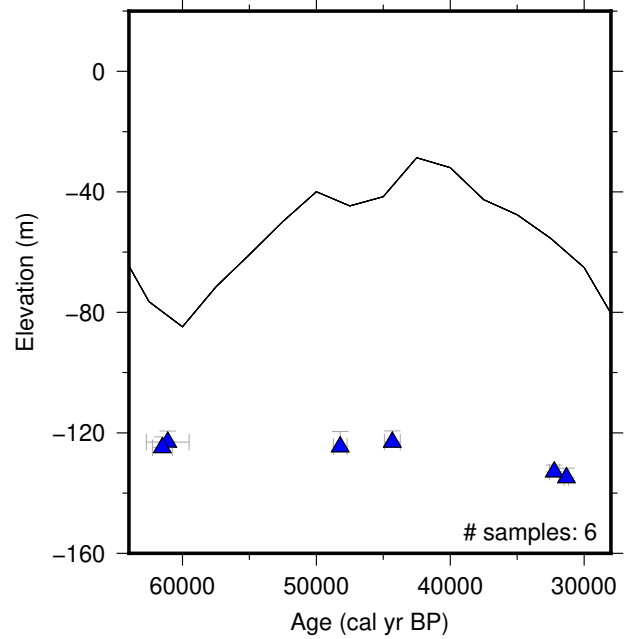
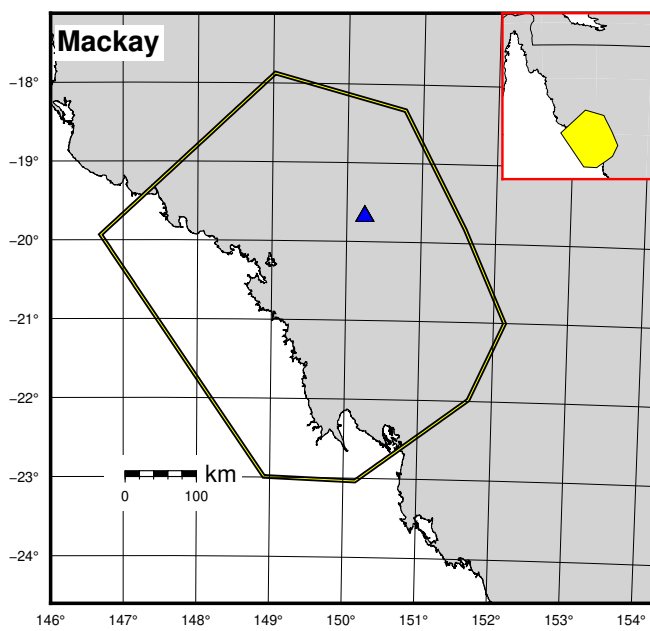


Figure 138: Paleo-sea level and comparison of six models for subregion Northeastern Australia (MIS3 - MIS4), location Cairns.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point Reference ice model: 72_73_74_75
 Reference Earth Model: ehgr

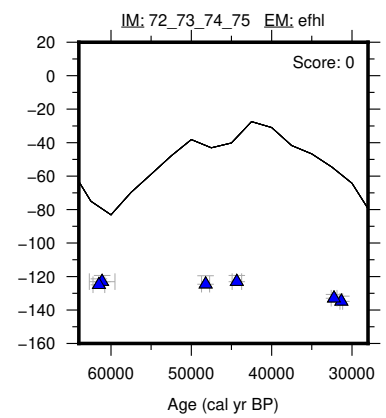
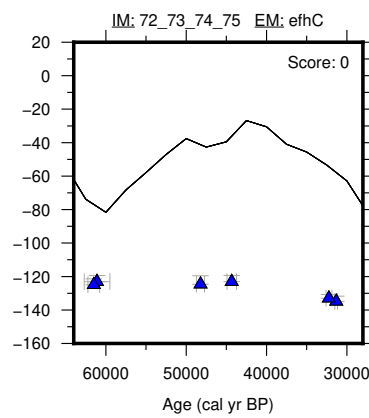
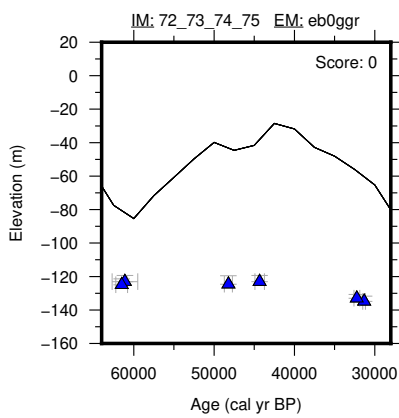
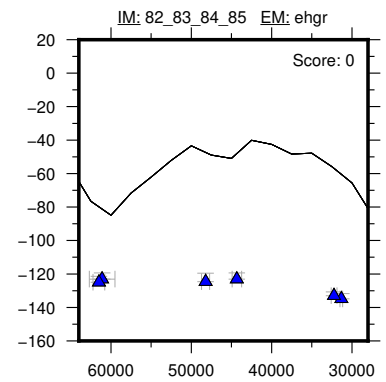
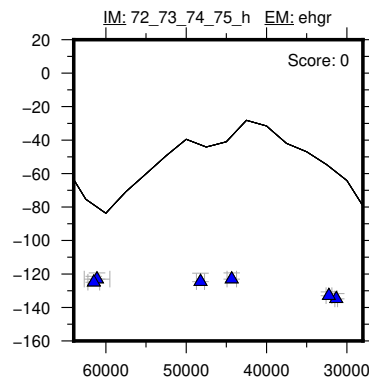
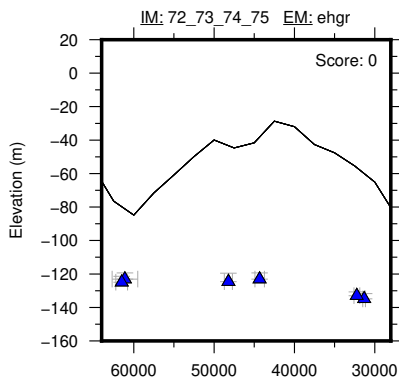


Figure 139: Paleo-sea level and comparison of six models for subregion Northeastern Australia (MIS3 - MIS4), location Mackay.

12.5 Papua New Guinea (MIS3 - MIS4)

References for the data used in each location.

Huon Peninsula: Chappell et al. (1996); Cutler et al. (2003); Hibbert et al. (2016); Yokoyama et al. (2001)

Huon Peninsula de Gelder: Chappell (2002); Chappell et al. (1996); de Gelder et al. (2021)

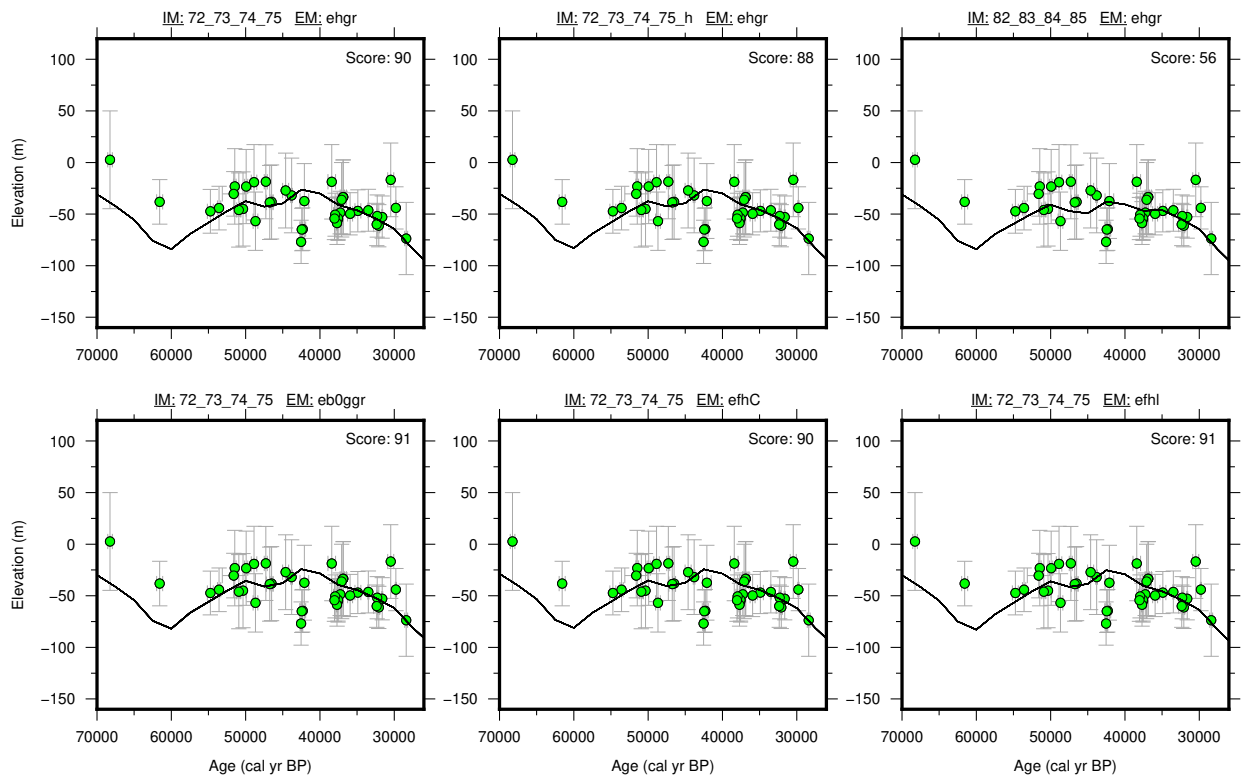
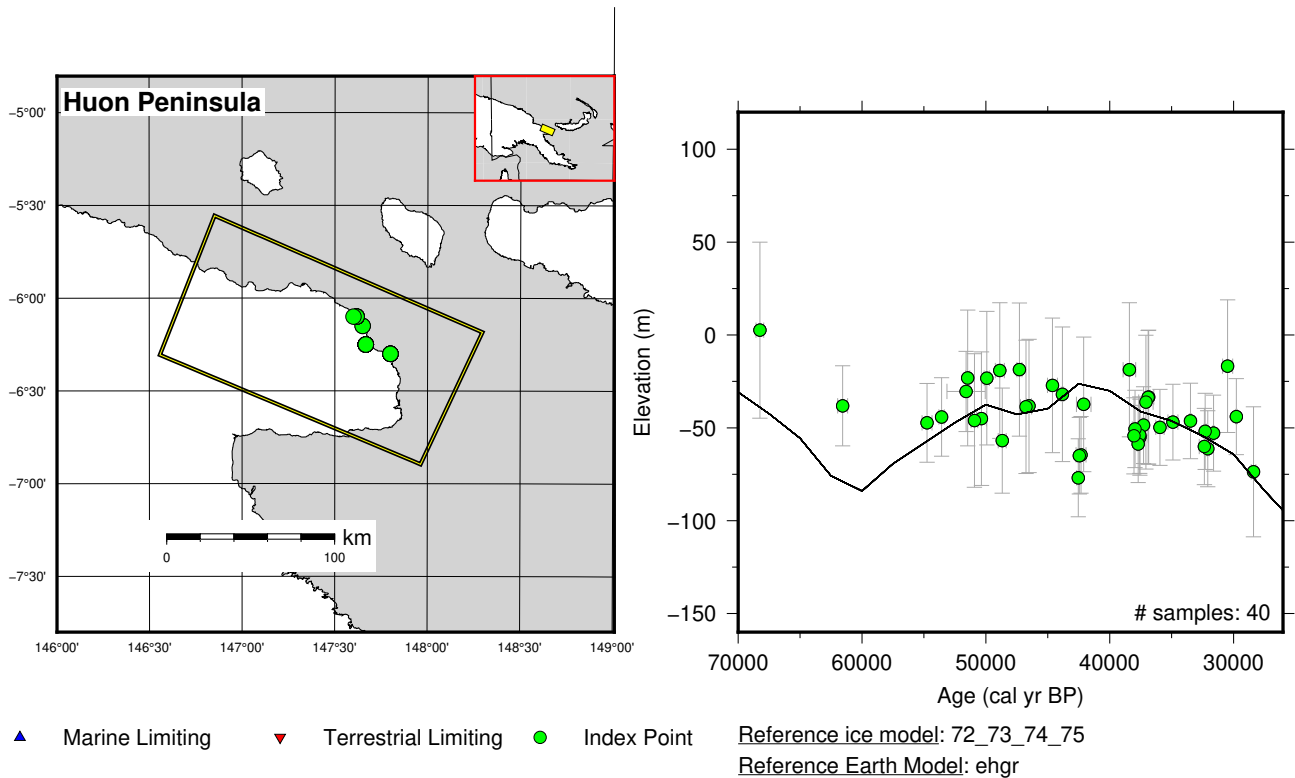


Figure 140: Paleo-sea level and comparison of six models for subregion Papua New Guinea (MIS3 - MIS4), location Huon Peninsula.

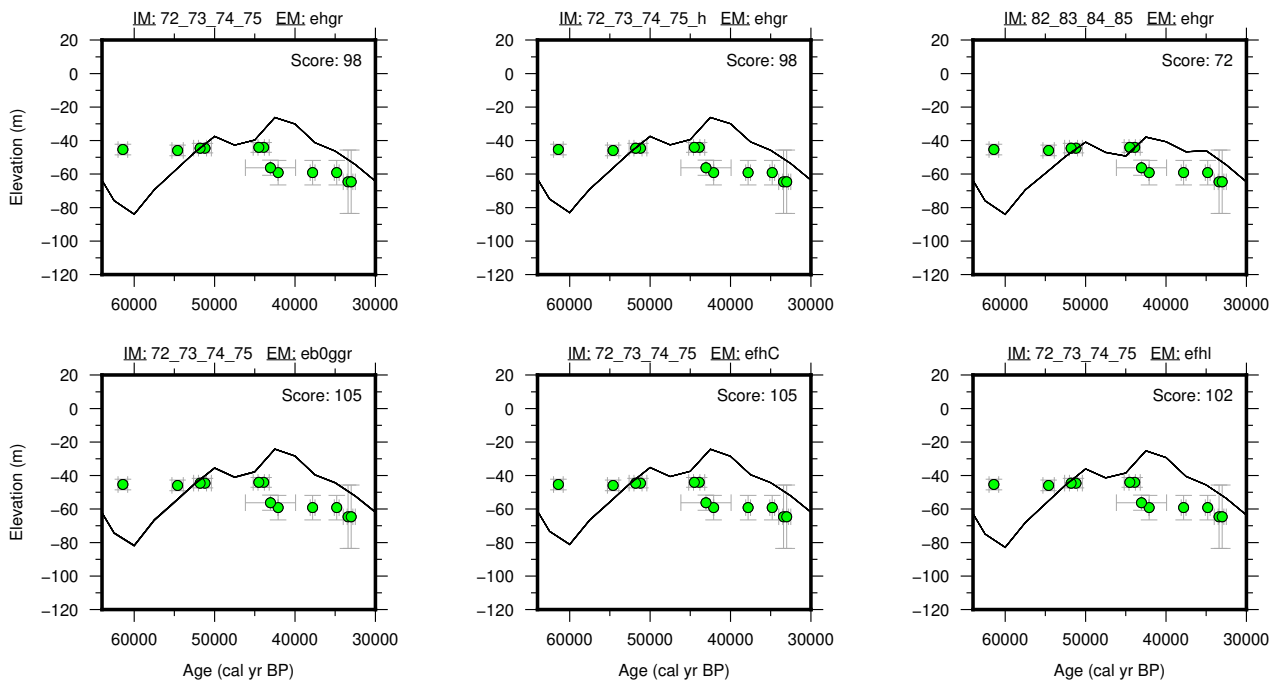
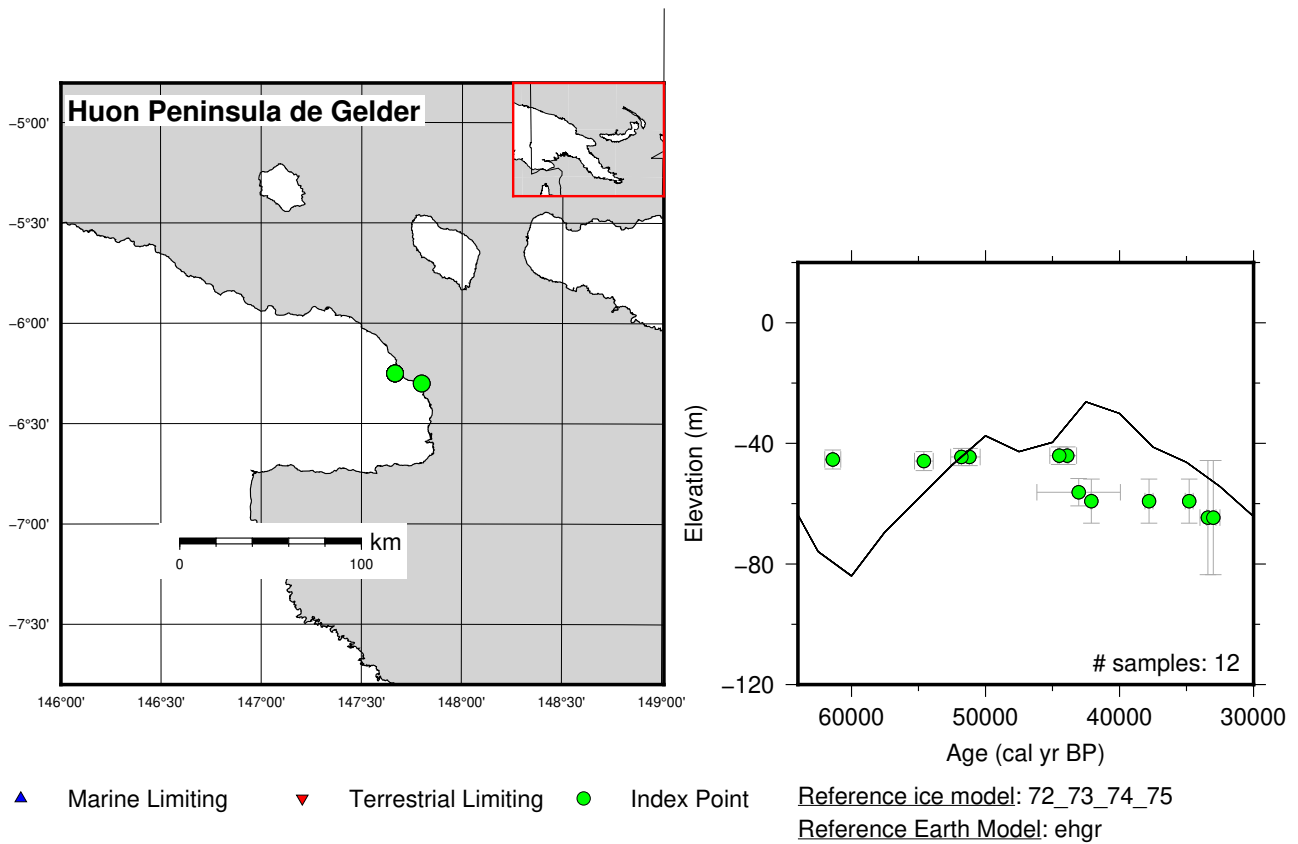


Figure 141: Paleo-sea level and comparison of six models for subregion Papua New Guinea (MIS3 - MIS4), location Huon Peninsula de Gelder.

12.6 Sea of Japan - East Sea (MIS3 - MIS4)

References for the data used in each location.

Tsushima-Korea Strait: Park et al. (2000)

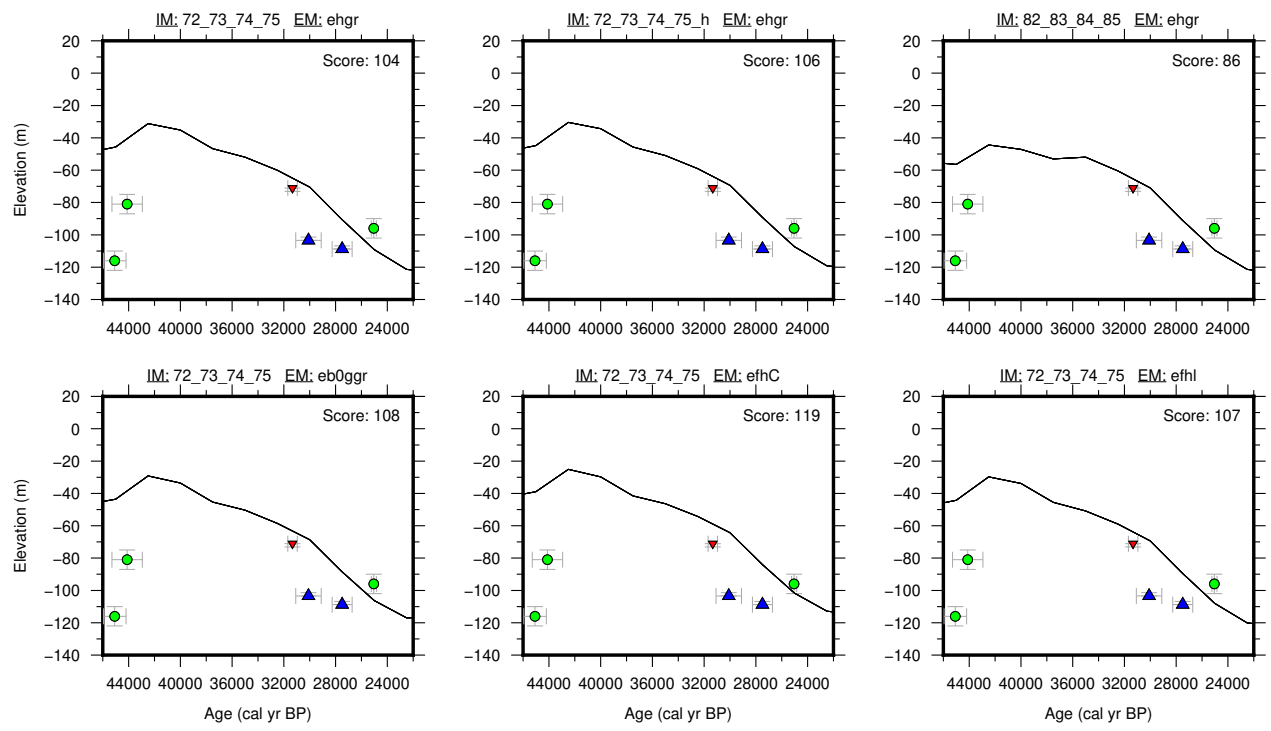
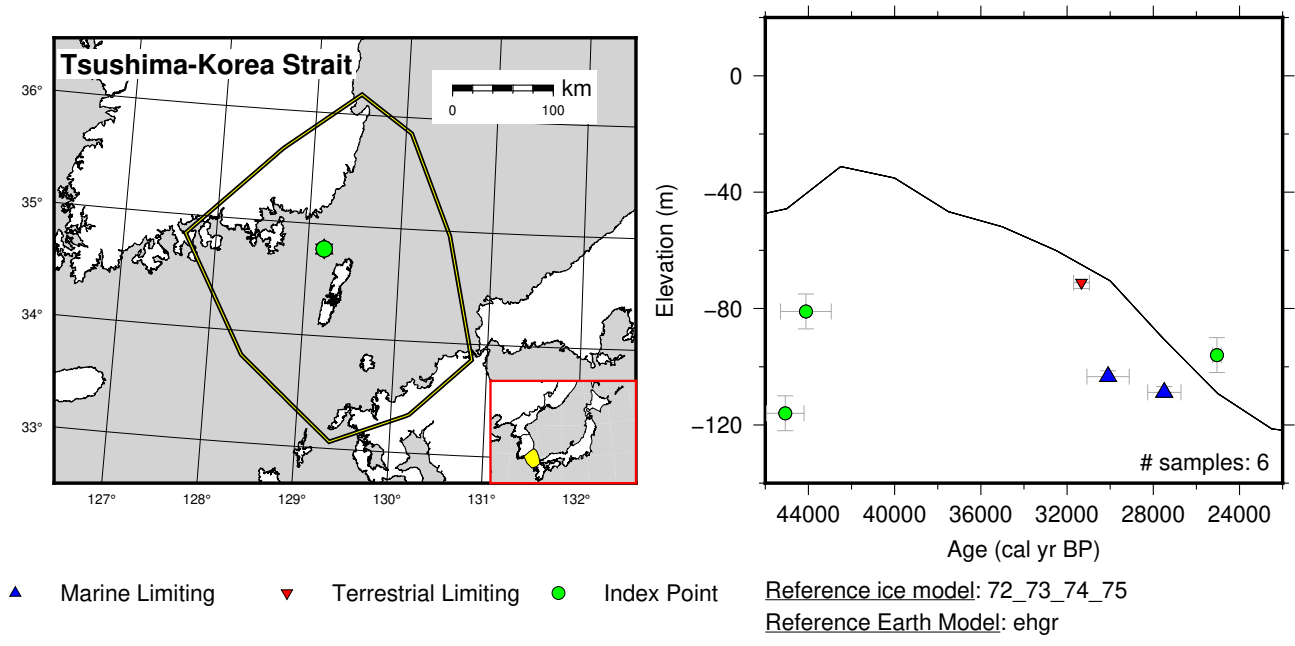


Figure 142: Paleo-sea level and comparison of six models for subregion Sea of Japan - East Sea (MIS3 - MIS4), location Tsushima-Korea Strait.

12.7 Sundaland (MIS3 - MIS4)

References for the data used in each location.

Sunda Shelf: Hanebuth et al. (2003); Steinke et al. (2003)

Vietnam Shelf: Schimanski and Stattegger (2005)

Strait Of Malacca: Geyh et al. (1979)

Mekong Delta: Ta et al. (2002)

Chao Phraya: Tanabe et al. (2003)

Berhala Strait: Geyh et al. (1979)

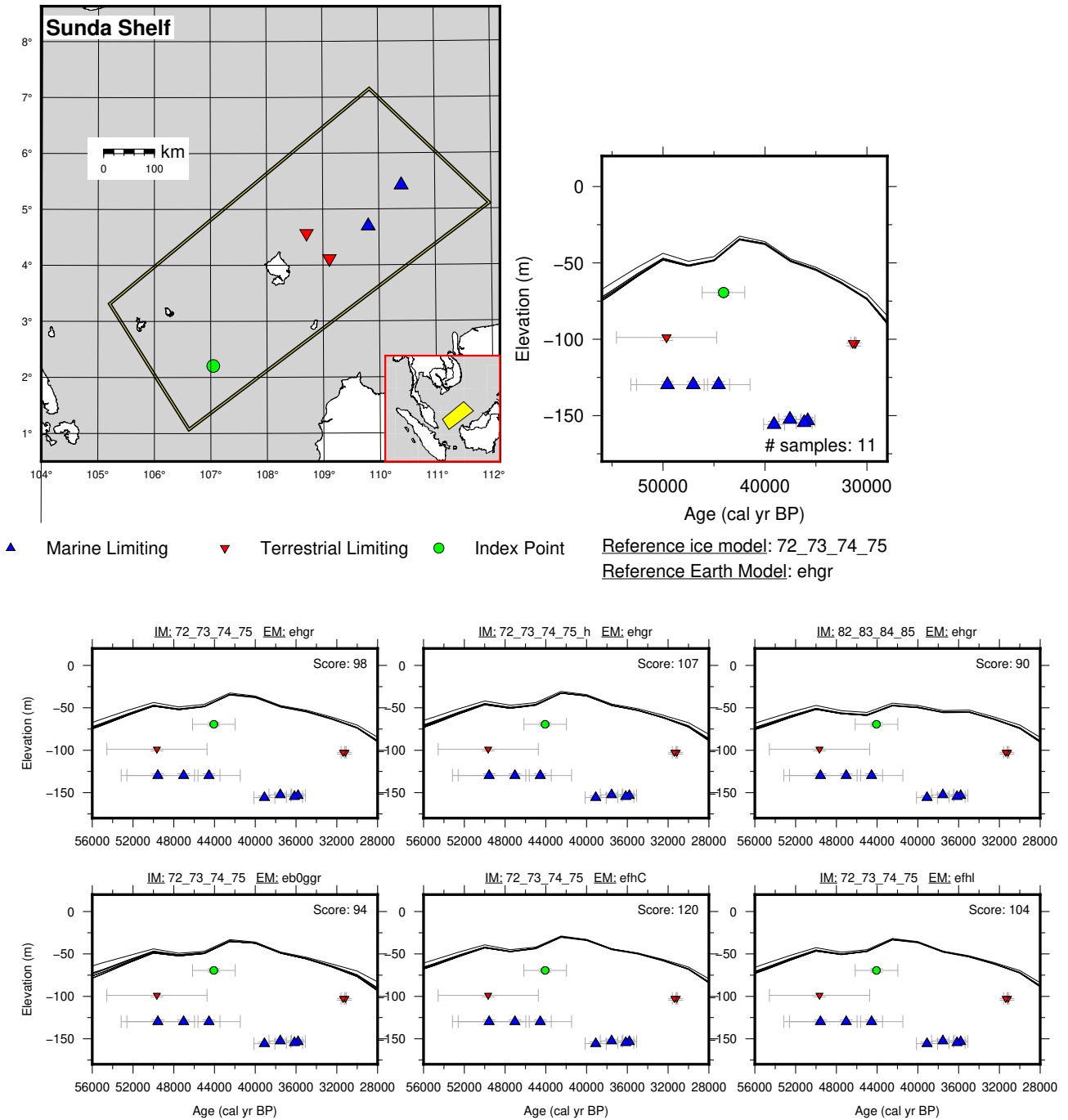
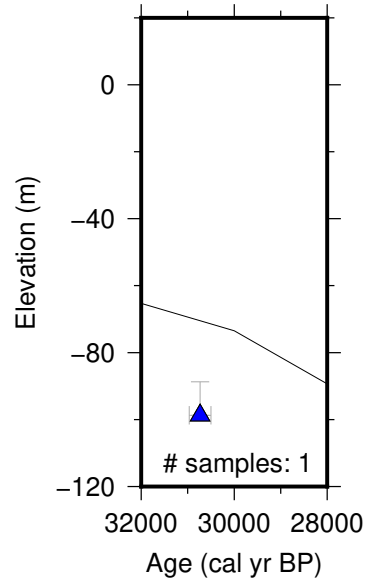
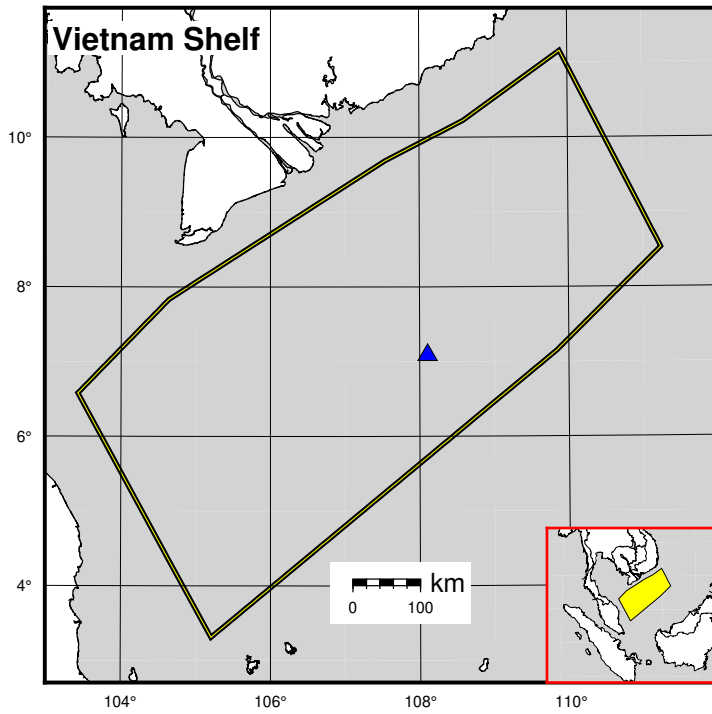


Figure 143: Paleo-sea level and comparison of six models for subregion Sundaland (MIS3 - MIS4), location Sunda Shelf.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point

Reference ice model: 72_73_74_75
Reference Earth Model: ehgr

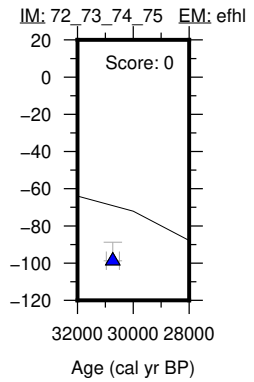
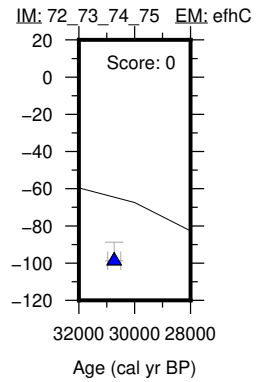
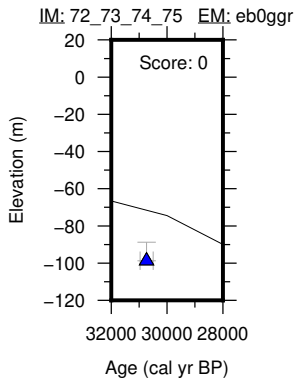
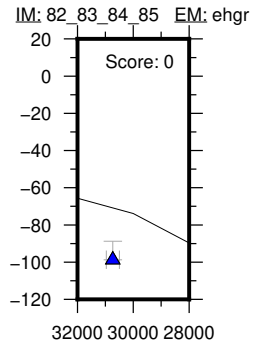
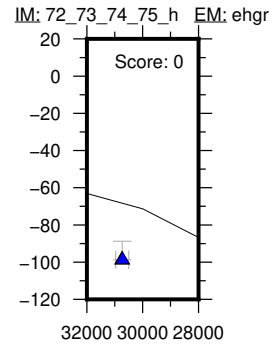
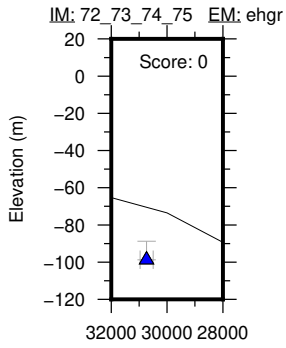


Figure 144: Paleo-sea level and comparison of six models for subregion Sundaland (MIS3 - MIS4), location Vietnam Shelf.

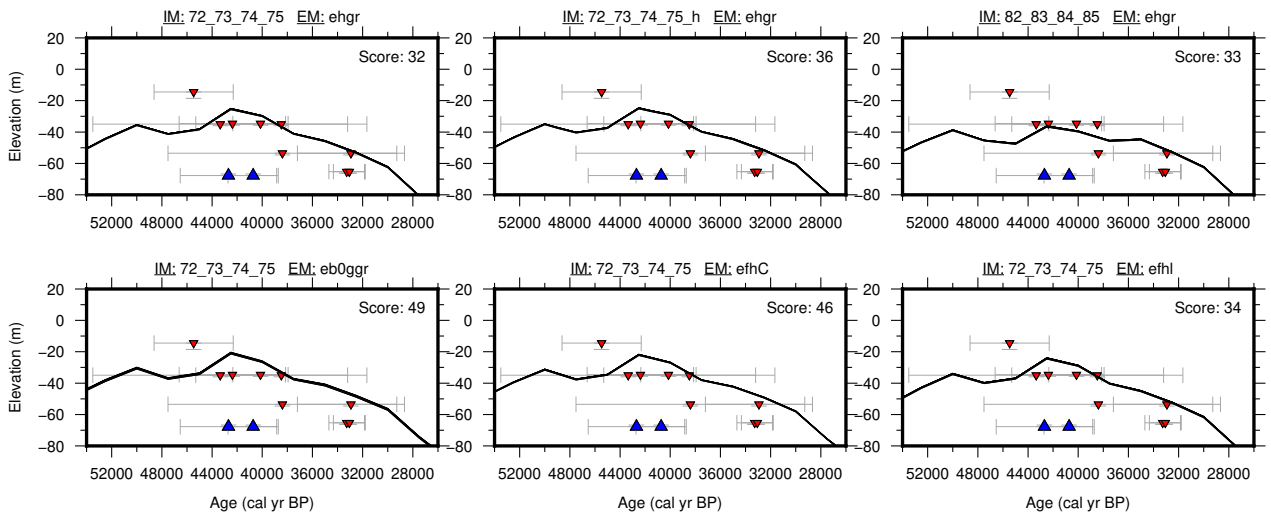
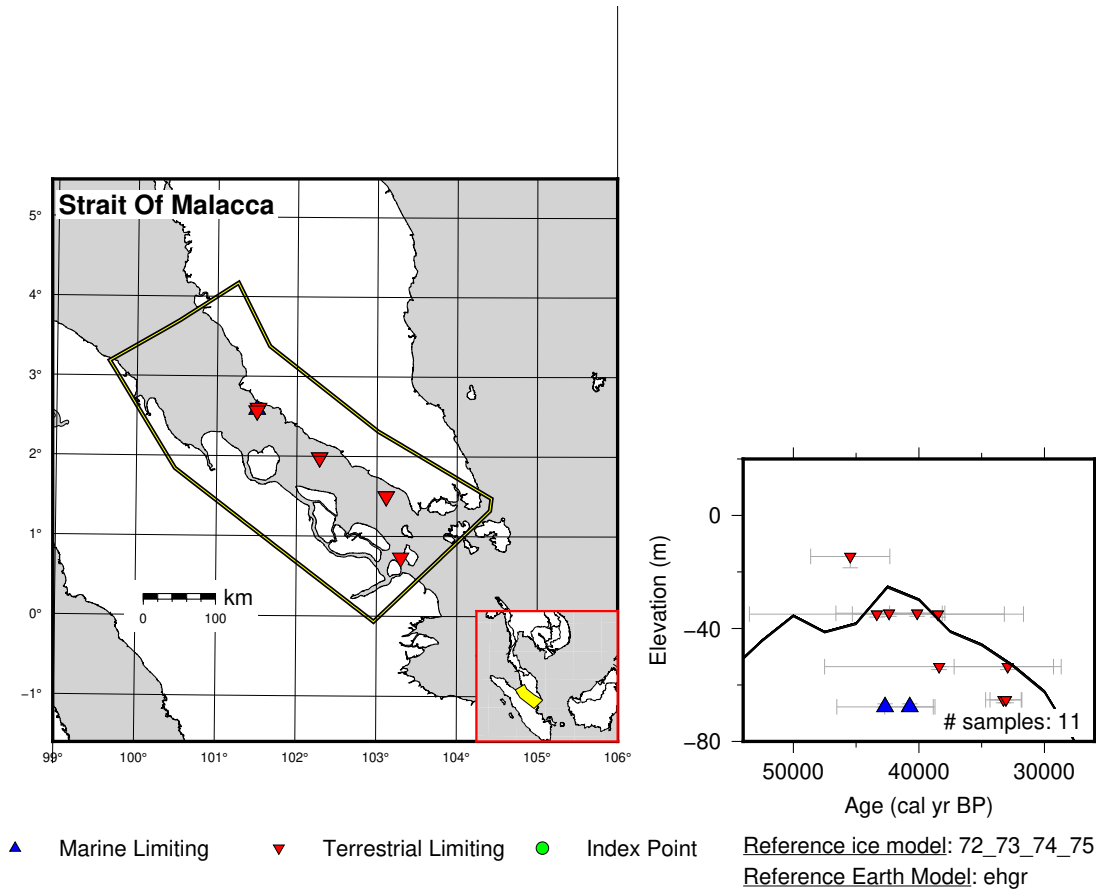
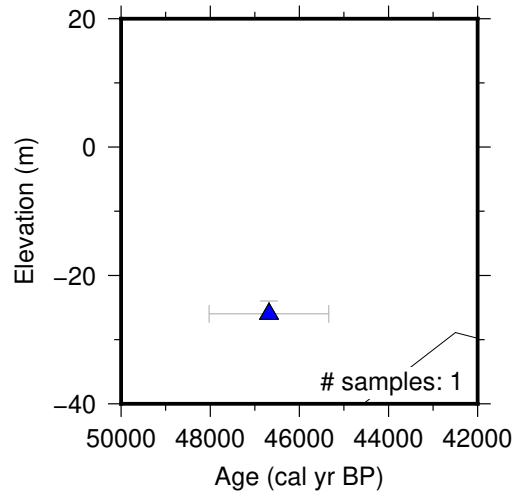
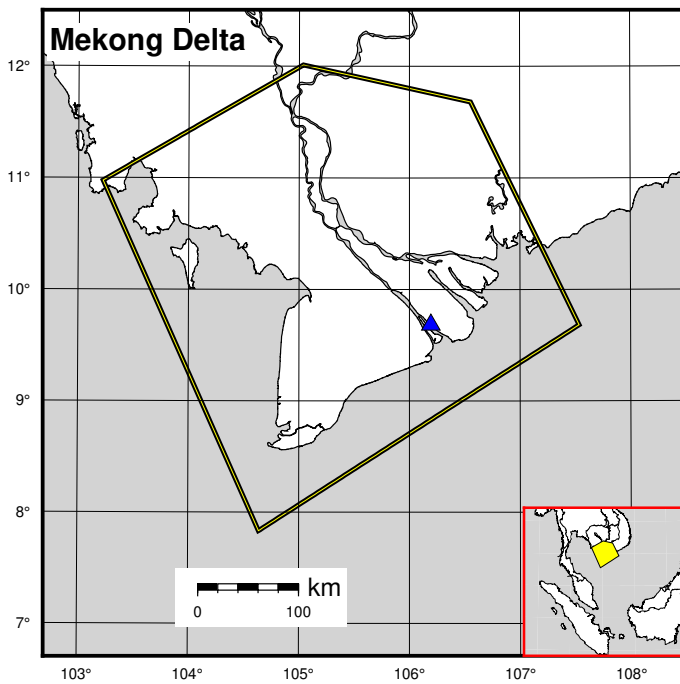


Figure 145: Paleo-sea level and comparison of six models for subregion Sundaland (MIS3 - MIS4), location Strait Of Malacca.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point

Reference ice model: 72_73_74_75
Reference Earth Model: ehgr

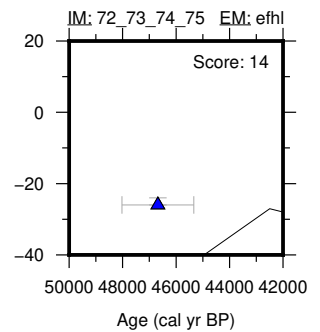
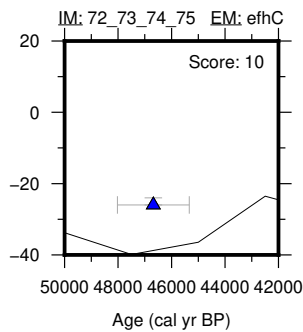
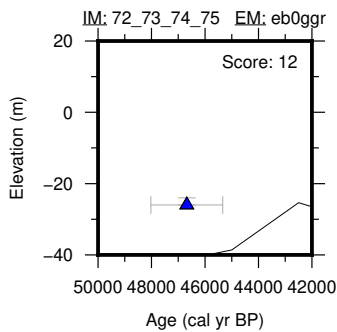
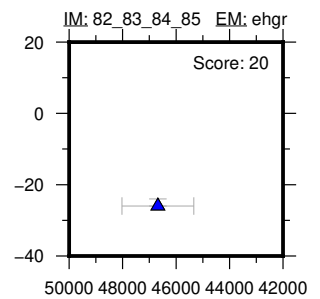
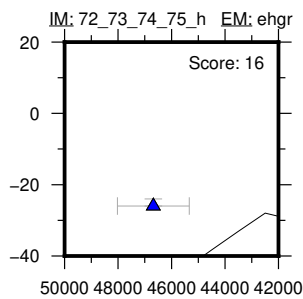
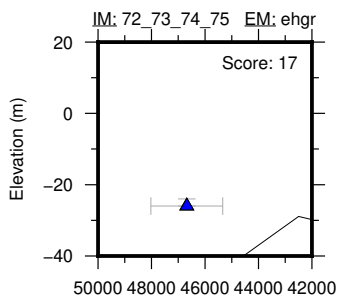


Figure 146: Paleo-sea level and comparison of six models for subregion Sundaland (MIS3 - MIS4), location Mekong Delta.

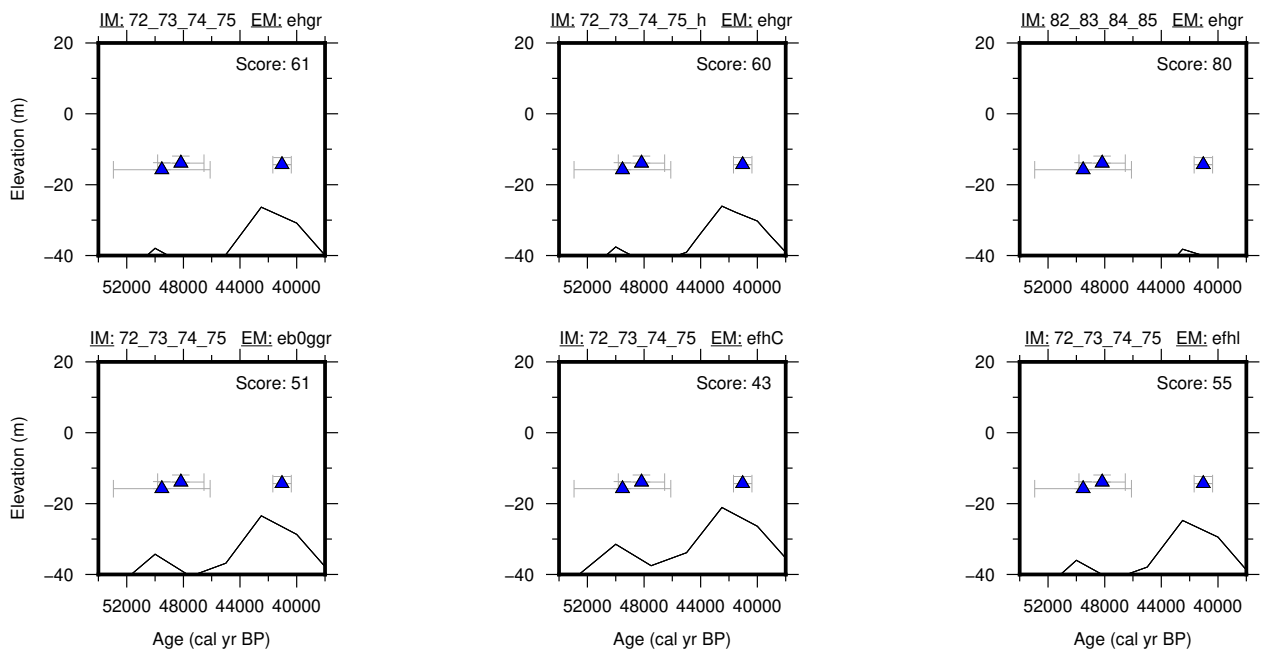
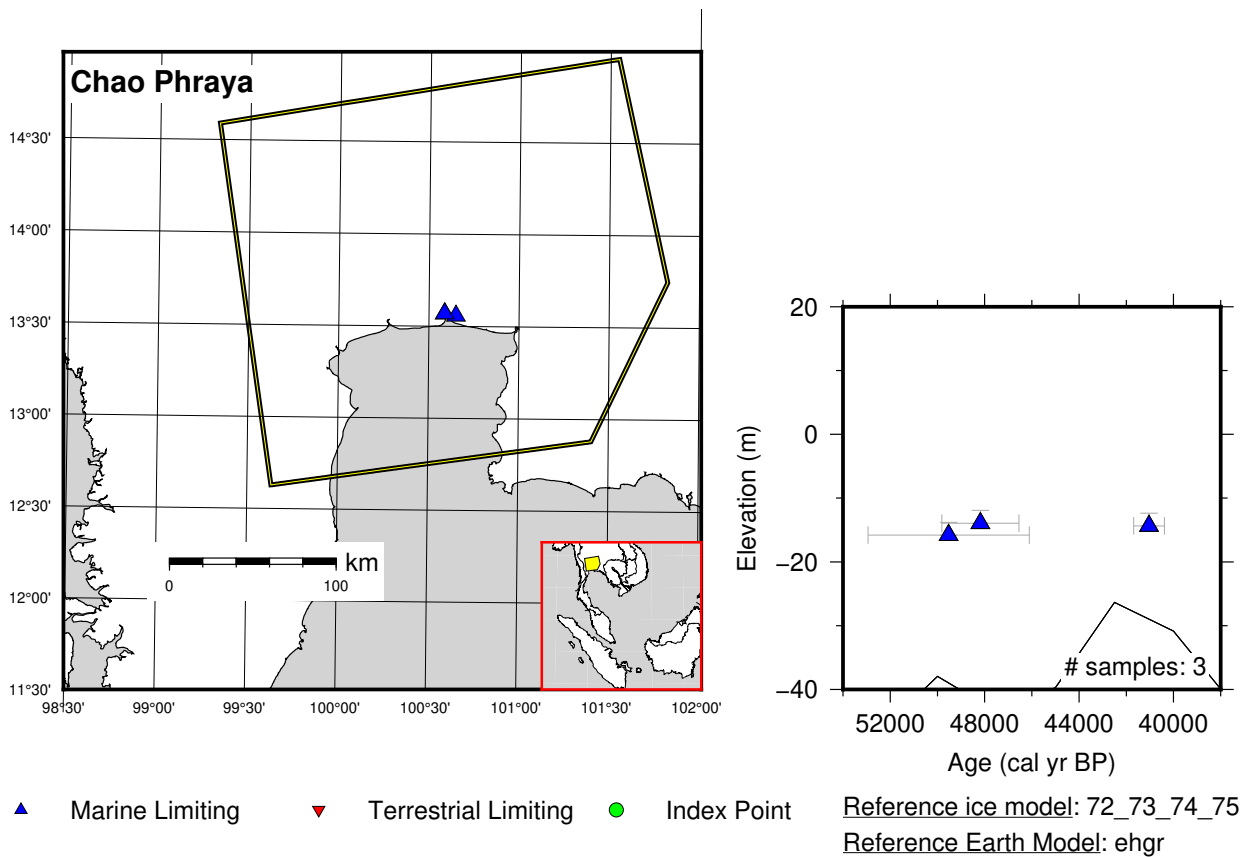
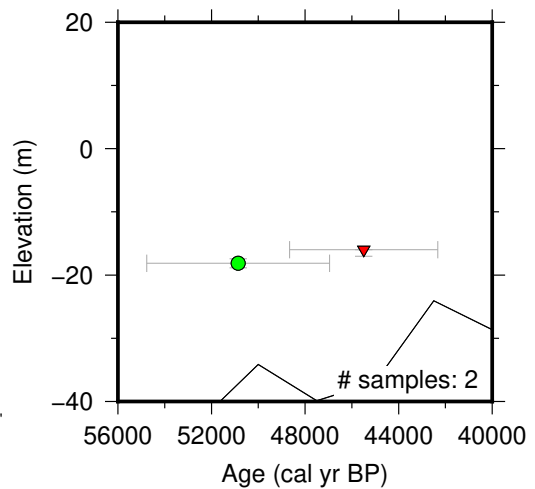
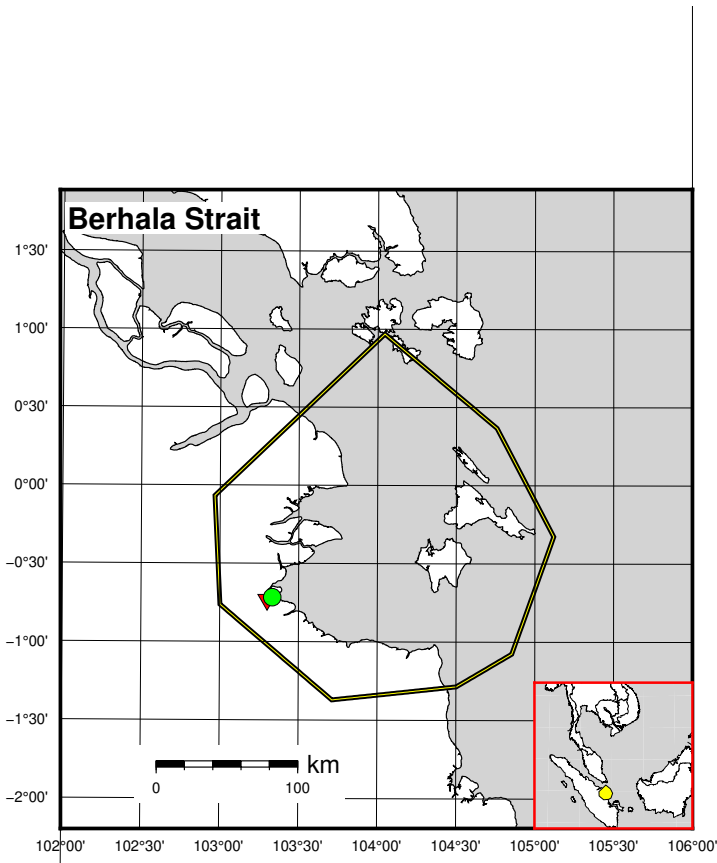


Figure 147: Paleo-sea level and comparison of six models for subregion Sundaland (MIS3 - MIS4), location Chao Phraya.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point

Reference ice model: 72_73_74_75
Reference Earth Model: ehgr

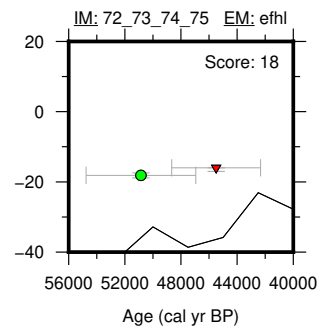
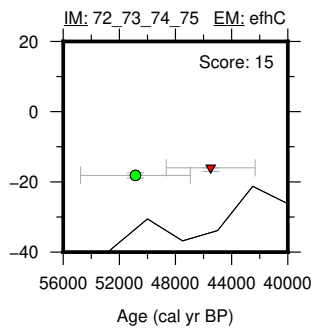
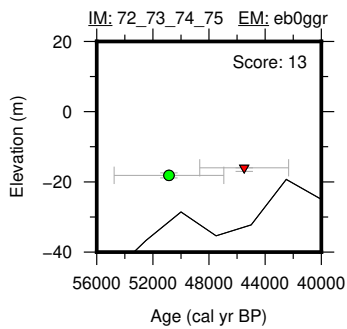
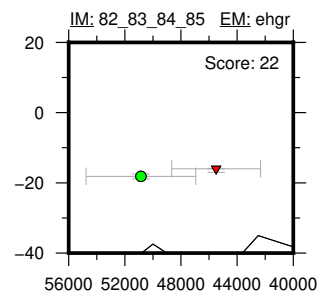
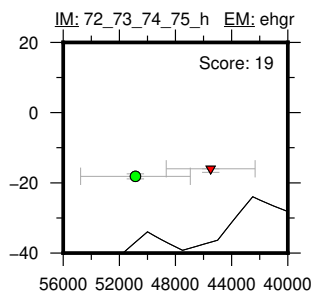
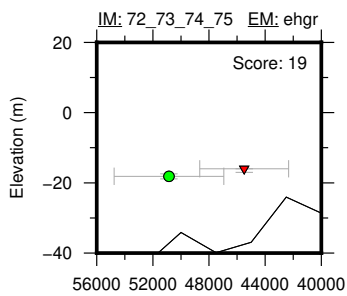


Figure 148: Paleo-sea level and comparison of six models for subregion Sundaland (MIS3 - MIS4), location Berhala Strait.

12.8 Yellow Sea (MIS3 - MIS4)

References for the data used in each location.

South Bohai Sea: Liu et al. (2009); Pico et al. (2016)

Yellow Sea: Liu et al. (2010); Pico et al. (2016); Wang et al. (2014)

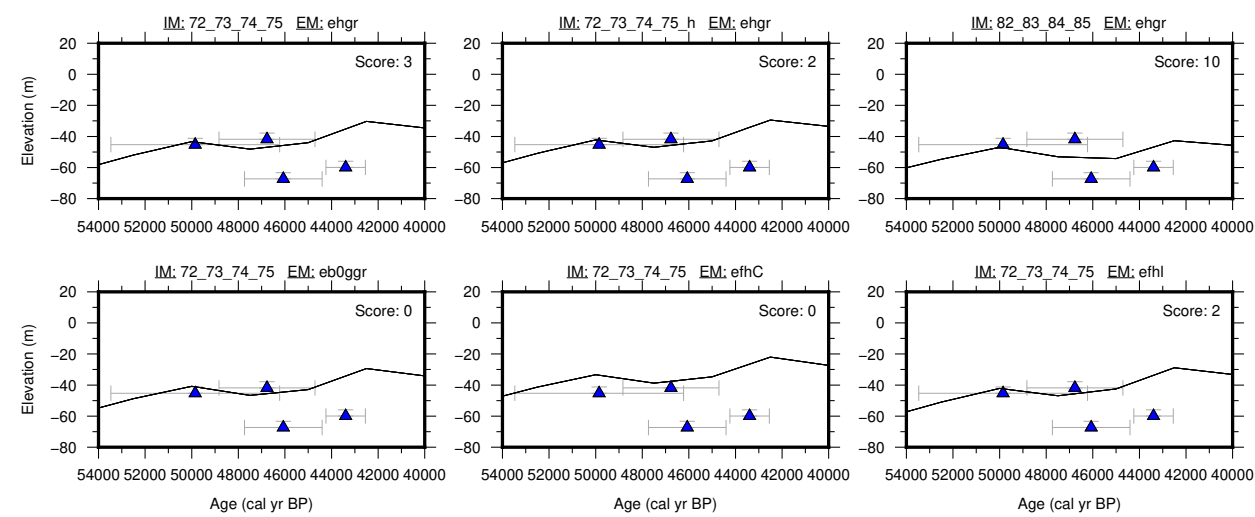
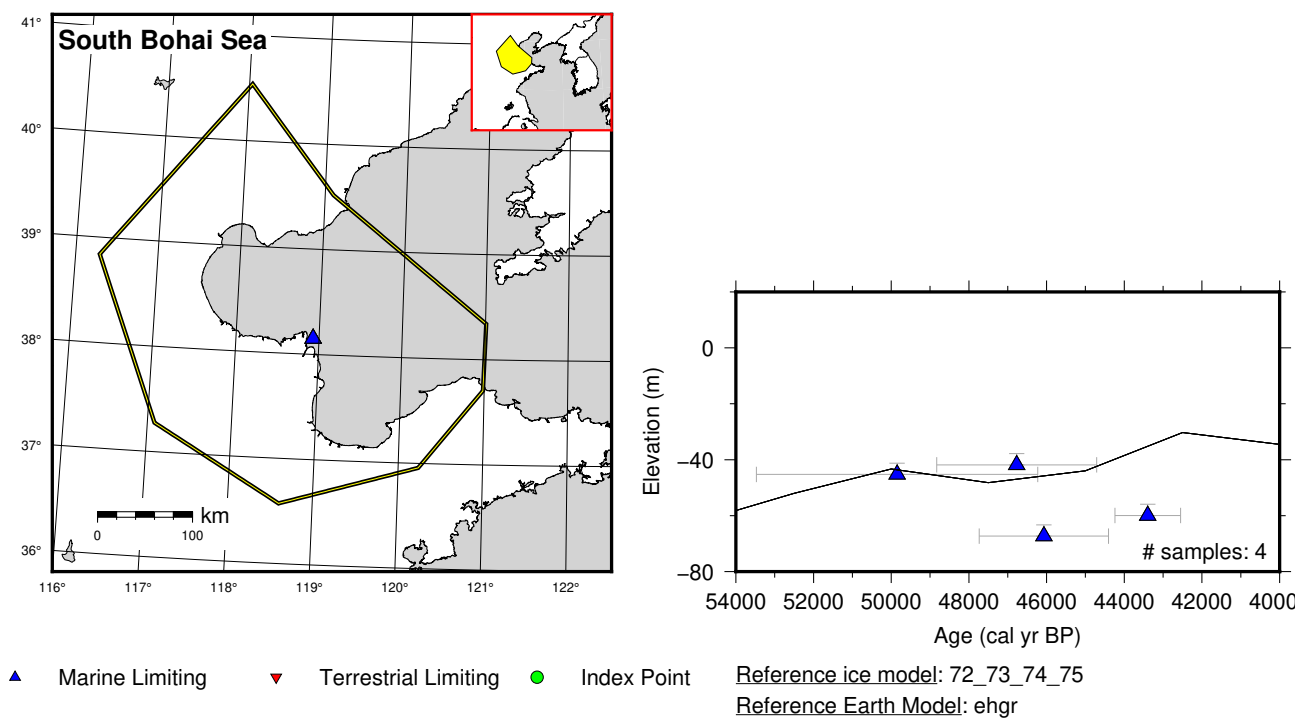
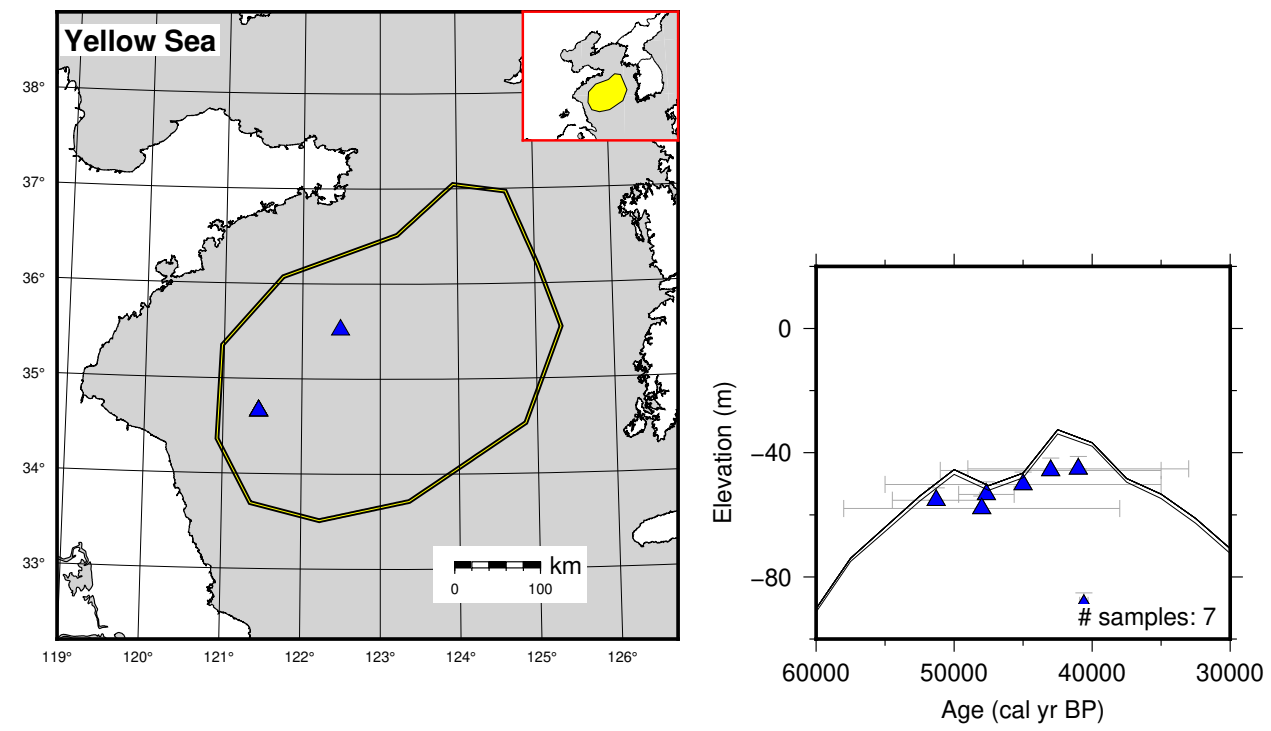


Figure 149: Paleo-sea level and comparison of six models for subregion Yellow Sea (MIS3 - MIS4), location South Bohai Sea.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point Reference ice model: 72_73_74_75
Reference Earth Model: ehgr

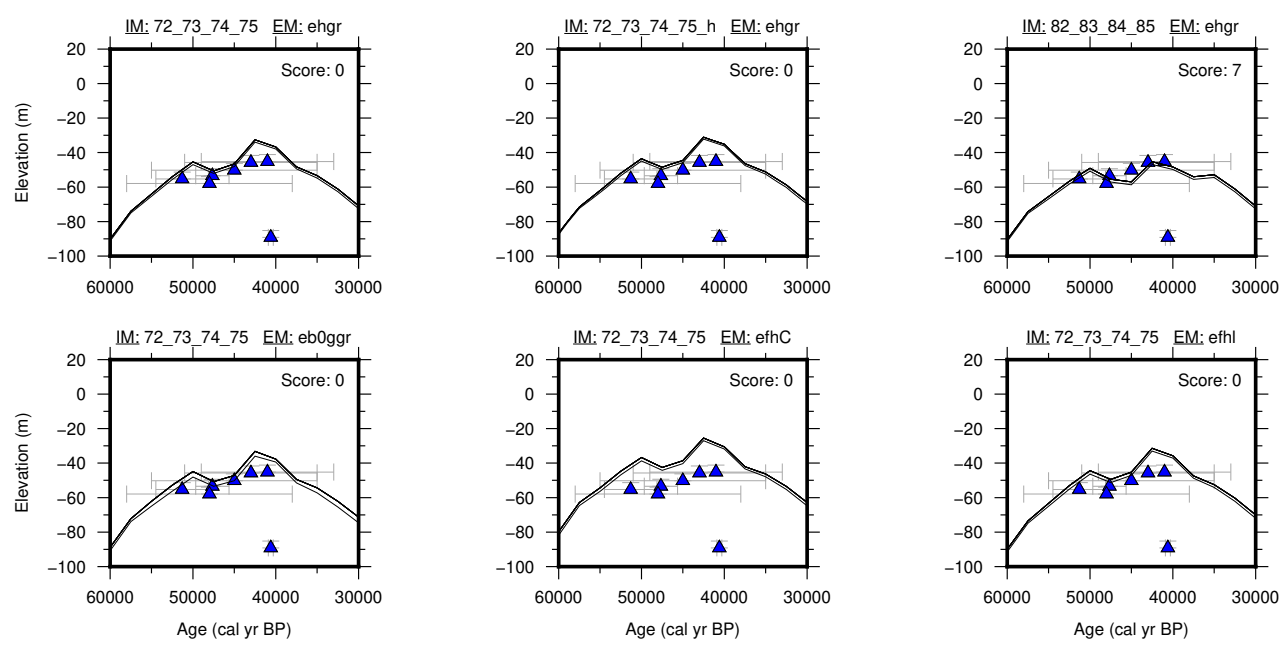


Figure 150: Paleo-sea level and comparison of six models for subregion Yellow Sea (MIS3 - MIS4), location Yellow Sea.

13 North America

13.1 Eastern United States

References for the data used in each location.

Outer Delaware: Belknap (1975); Fletcher et al. (1993); Nikitina et al. (2000); Ramsey and Baxter (1996)

Inner Delaware: Belknap (1975); Kraft (1976); Leorri et al. (2006); Marx (1981); Nikitina et al. (2000); Ramsey and Baxter (1996); Rogers and Pizzuto (1994)

Inner Chesapeake: Cinquemani et al. (1982); Colman et al. (2002)

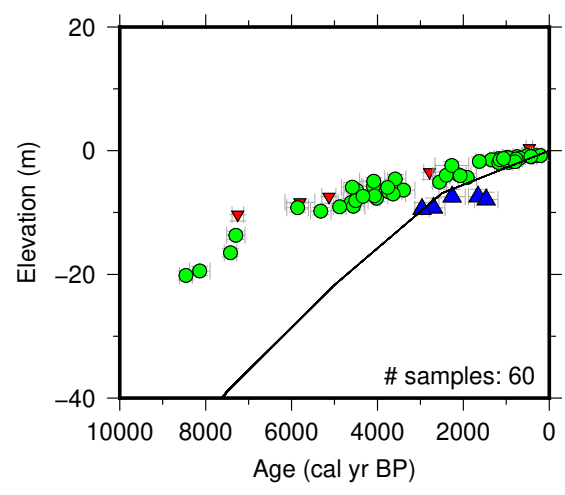
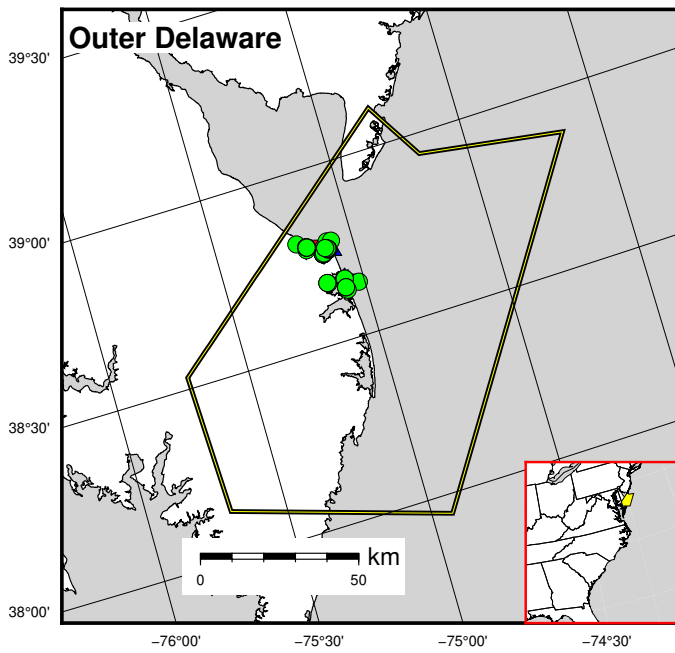
Eastern Shore: Engelhart et al. (2009); Finkelstein and Ferland (1987); Newman and Rusnak (1965); van de Plassche (1990)

Northern North Carolina: Emery et al. (1967); Horton et al. (2009); Kemp (2009); Mallinson et al. (2005); Sears (1973); Stanton (2008)

Southern North Carolina: Cinquemani et al. (1982); Culver et al. (2007); Field et al. (1979); Horton et al. (2009); Kemp (2009); Spaur and Snyder (1999)

Northern South Carolina: Cinquemani et al. (1982); Gayes et al. (1992)

Southern South Carolina: Cinquemani et al. (1982)



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point Reference ice model: 72_73_74_75
 Reference Earth Model: ehgr

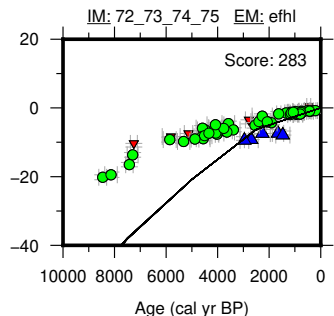
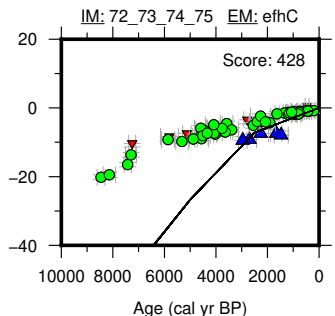
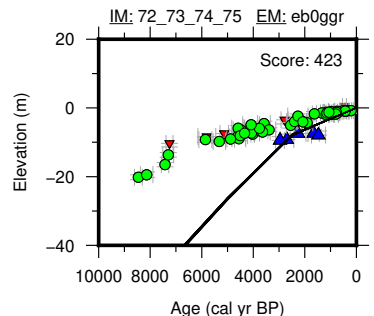
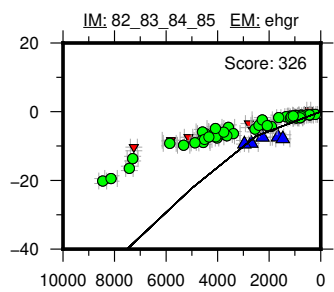
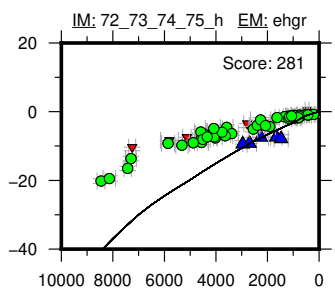
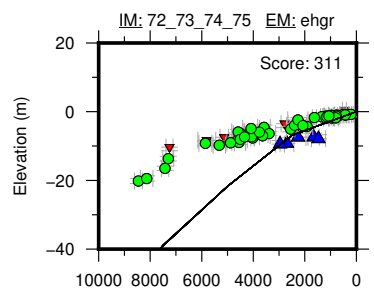
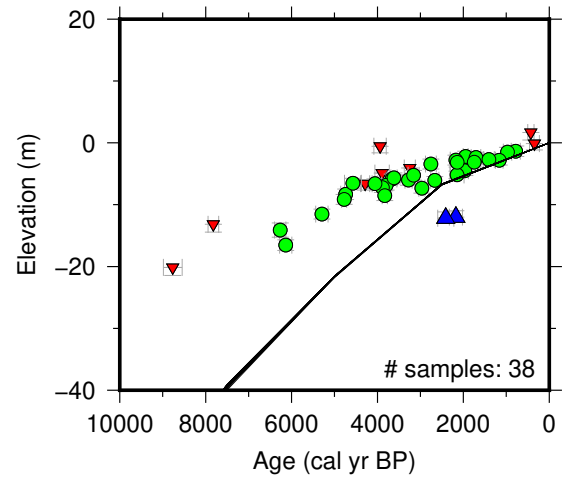
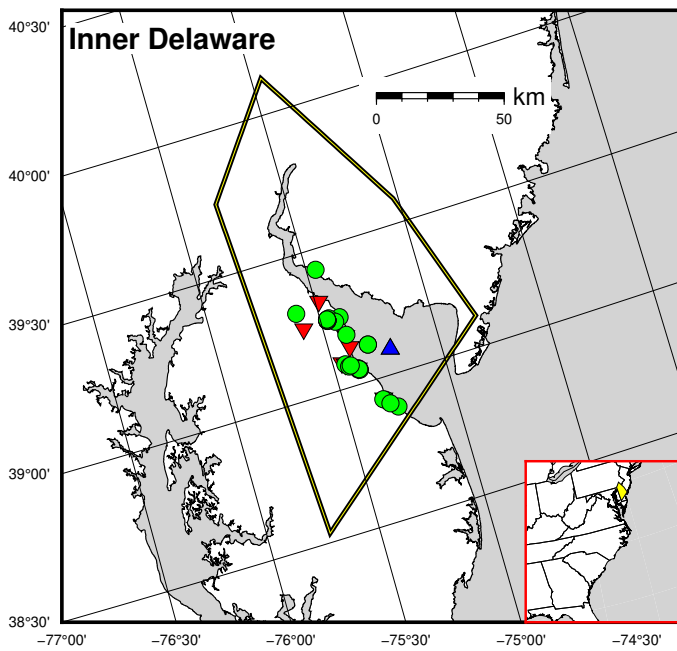


Figure 151: Paleo-sea level and comparison of six models for subregion Eastern United States, location Outer Delaware.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point Reference ice model: 72_73_74_75
Reference Earth Model: ehgr

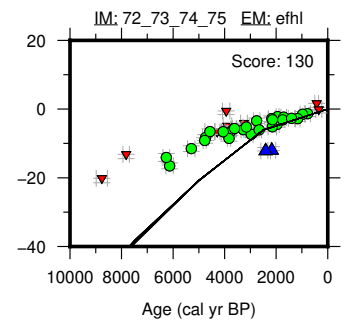
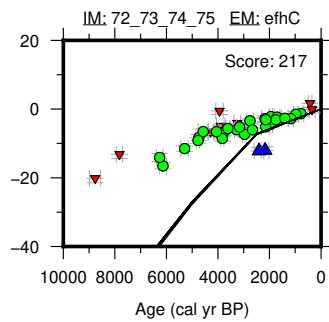
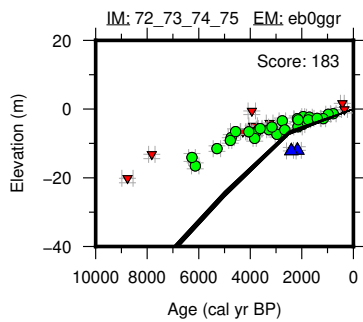
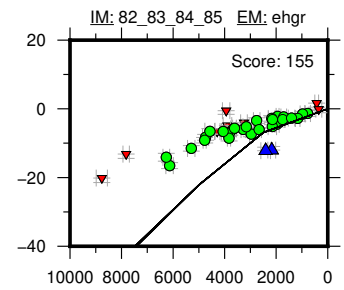
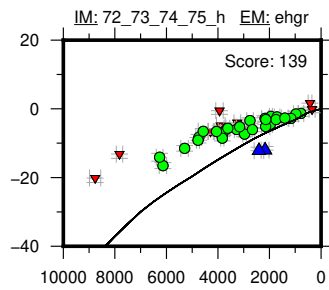
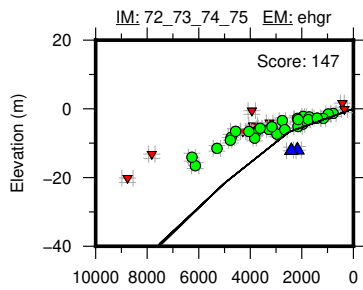


Figure 152: Paleo-sea level and comparison of six models for subregion Eastern United States, location Inner Delaware.

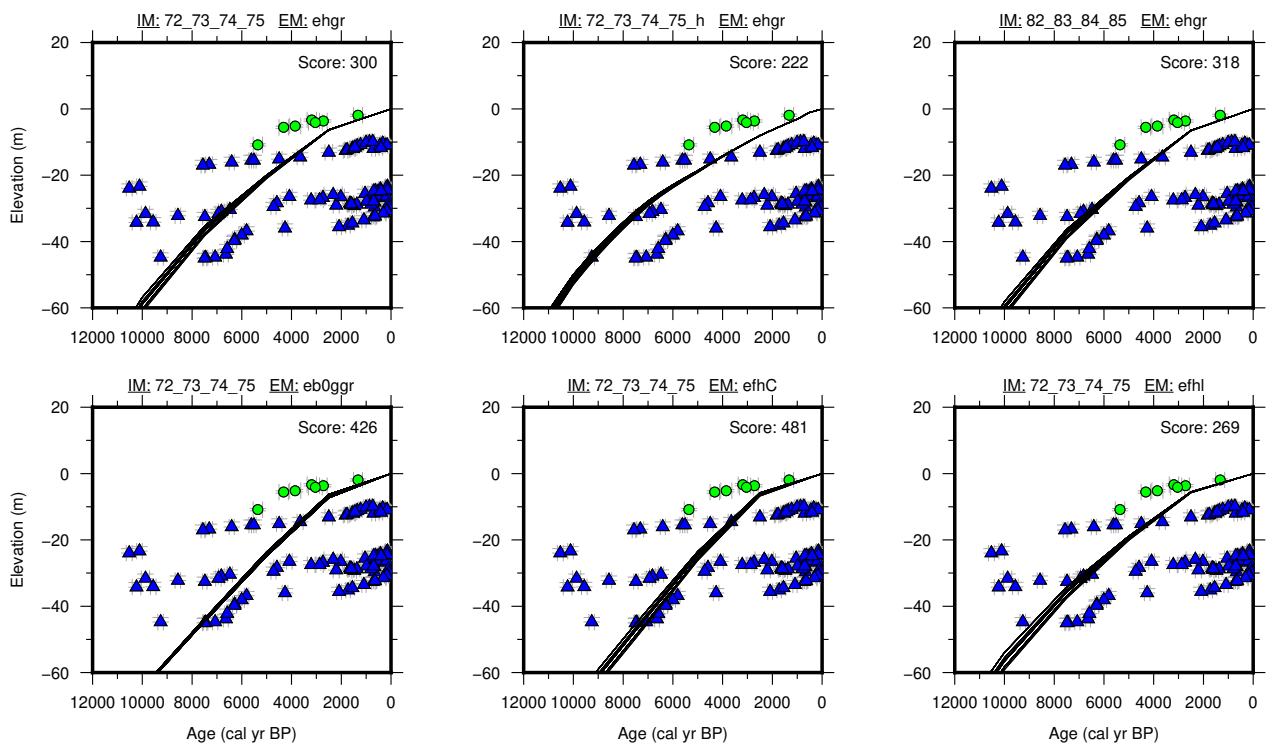
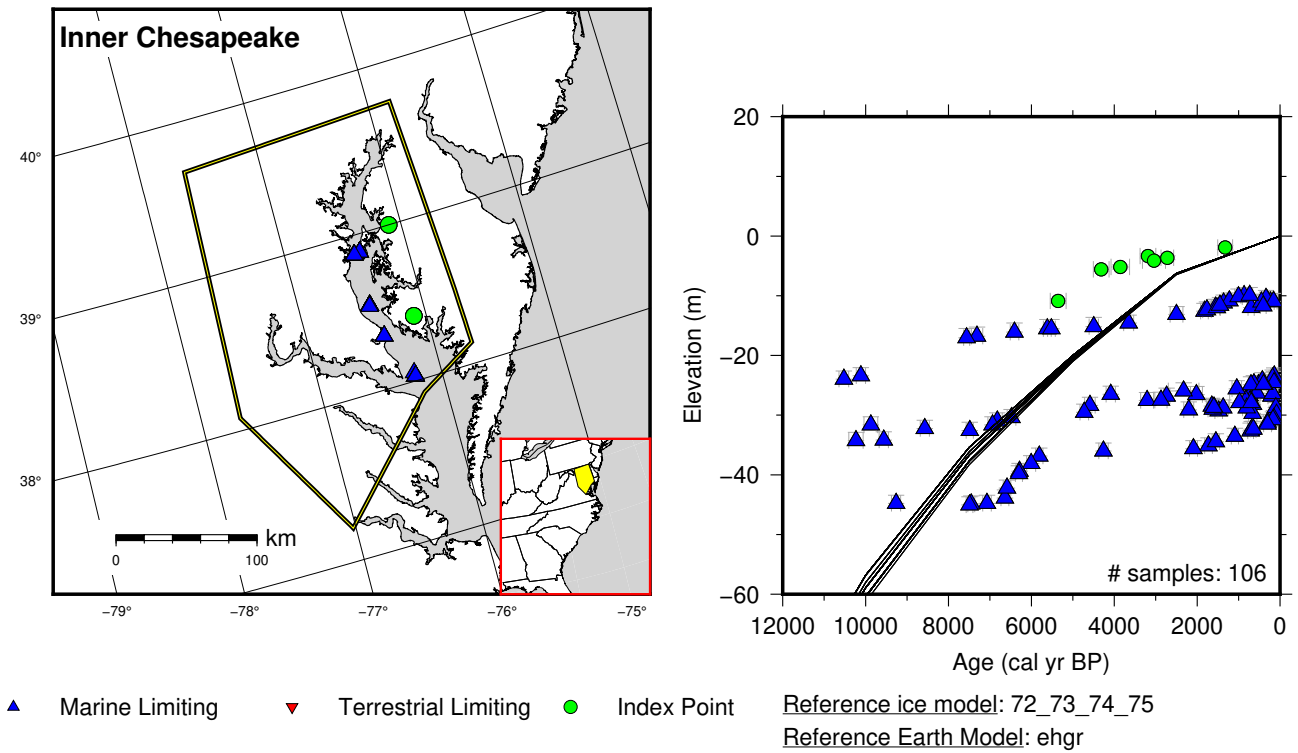
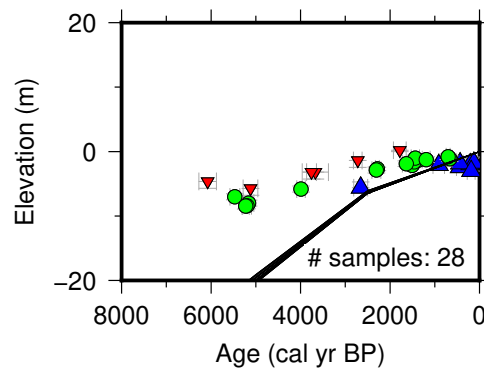
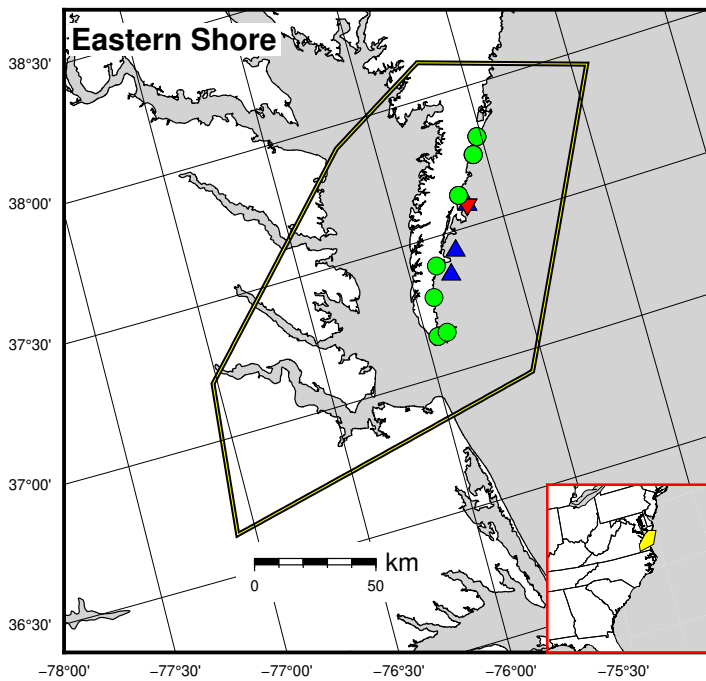


Figure 153: Paleo-sea level and comparison of six models for subregion Eastern United States, location Inner Chesapeake.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point

Reference ice model: 72_73_74_75
Reference Earth Model: ehgr

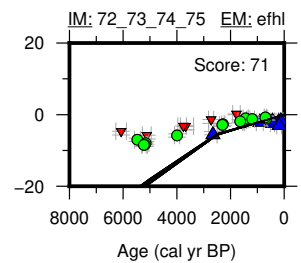
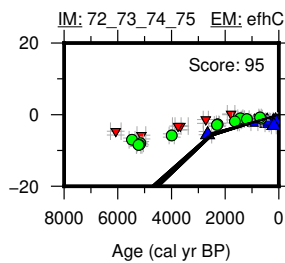
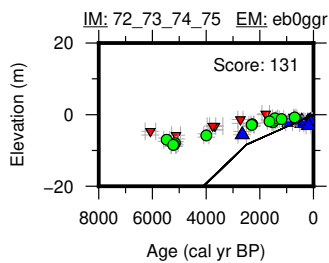
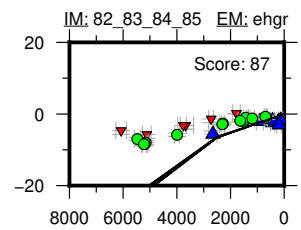
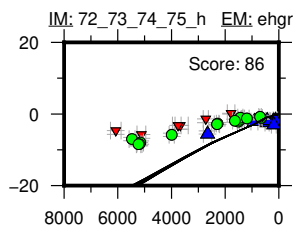
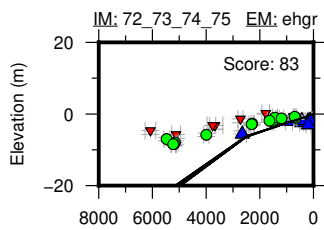


Figure 154: Paleo-sea level and comparison of six models for subregion Eastern United States, location Eastern Shore.

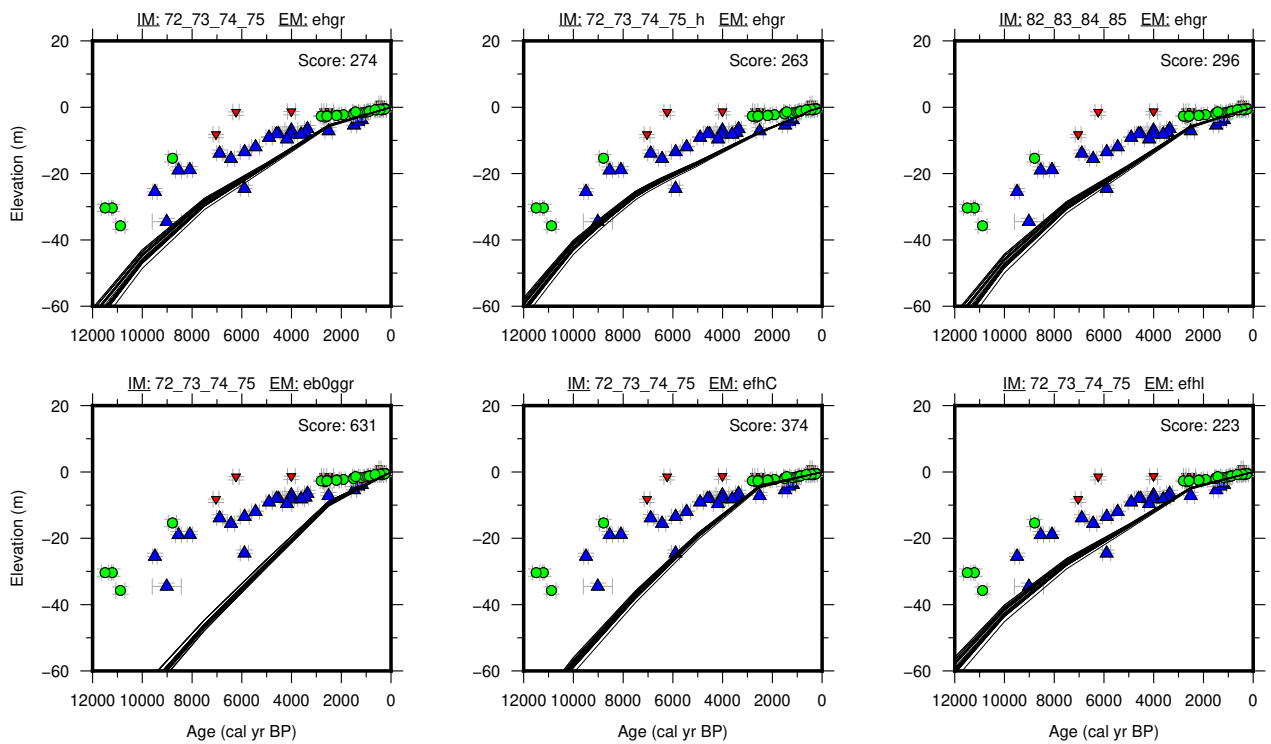
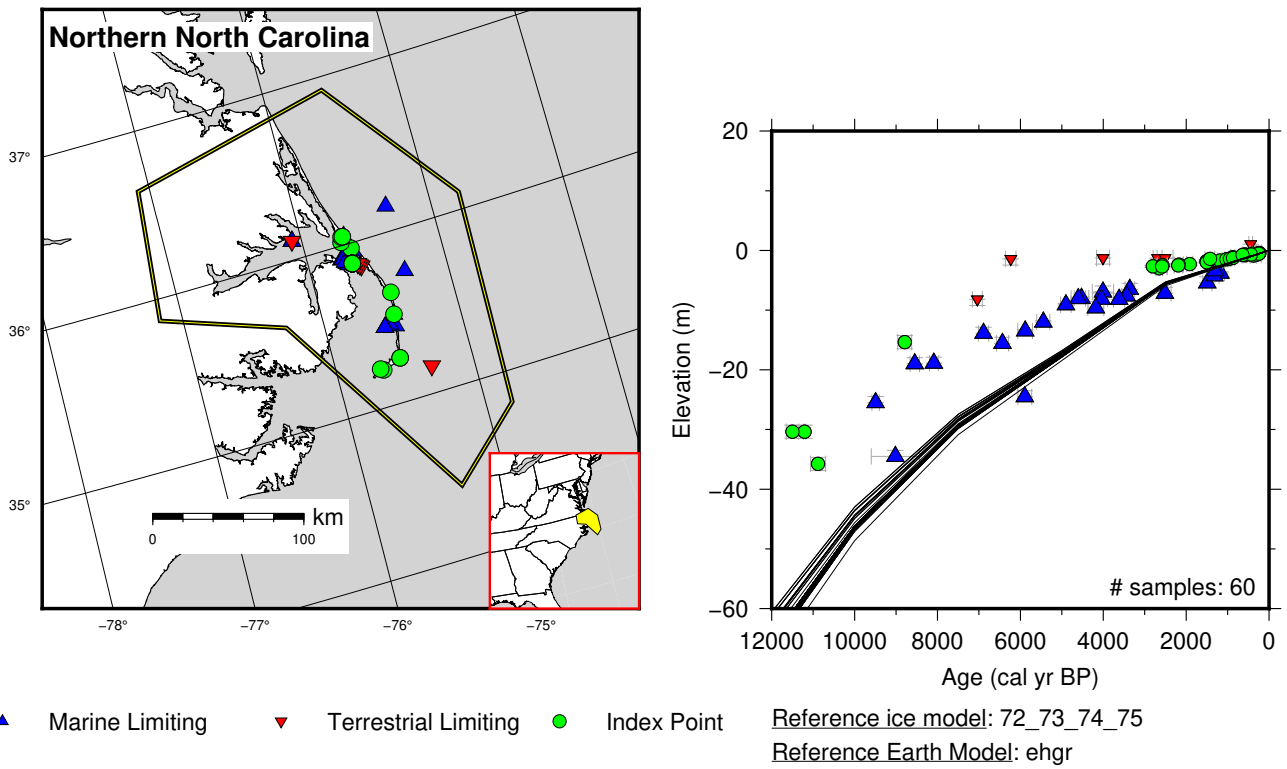
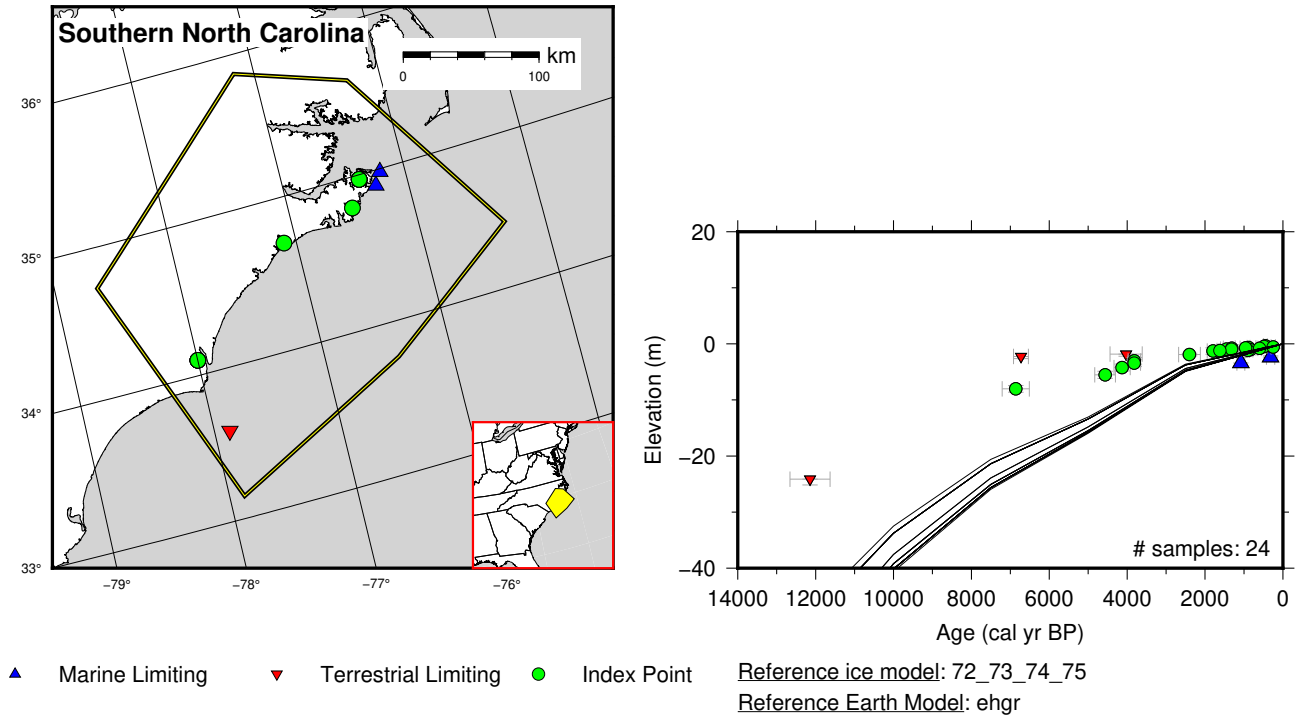


Figure 155: Paleo-sea level and comparison of six models for subregion Eastern United States, location Northern North Carolina.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point

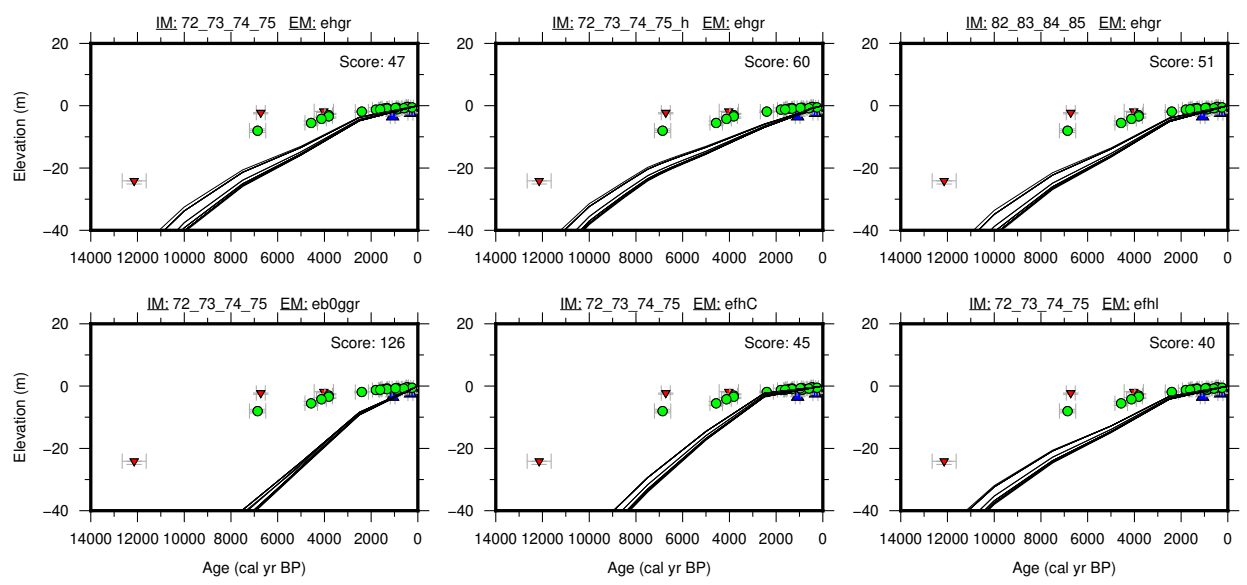


Figure 156: Paleo-sea level and comparison of six models for subregion Eastern United States, location Southern North Carolina.

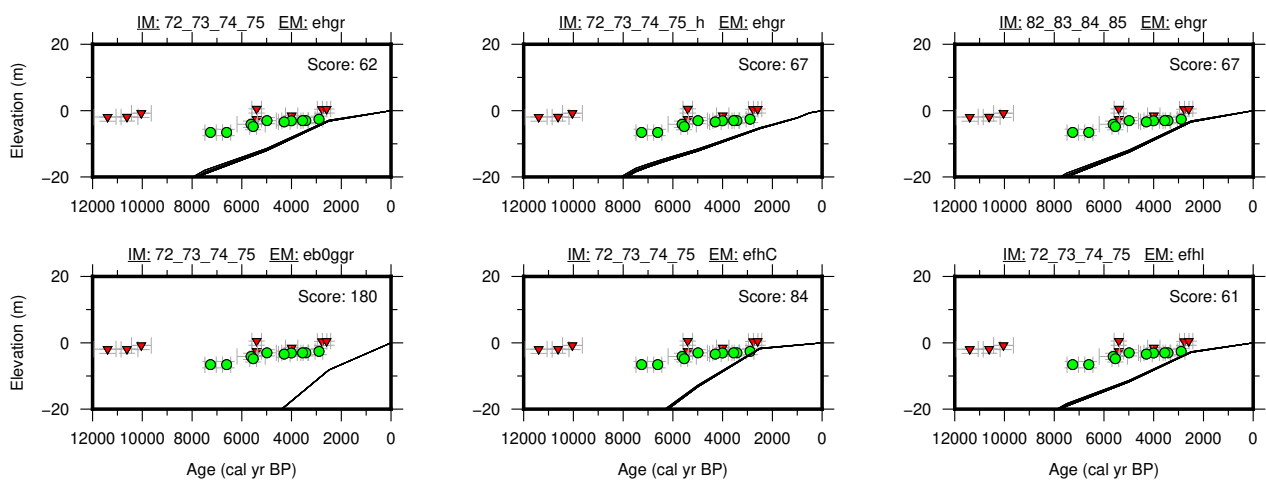
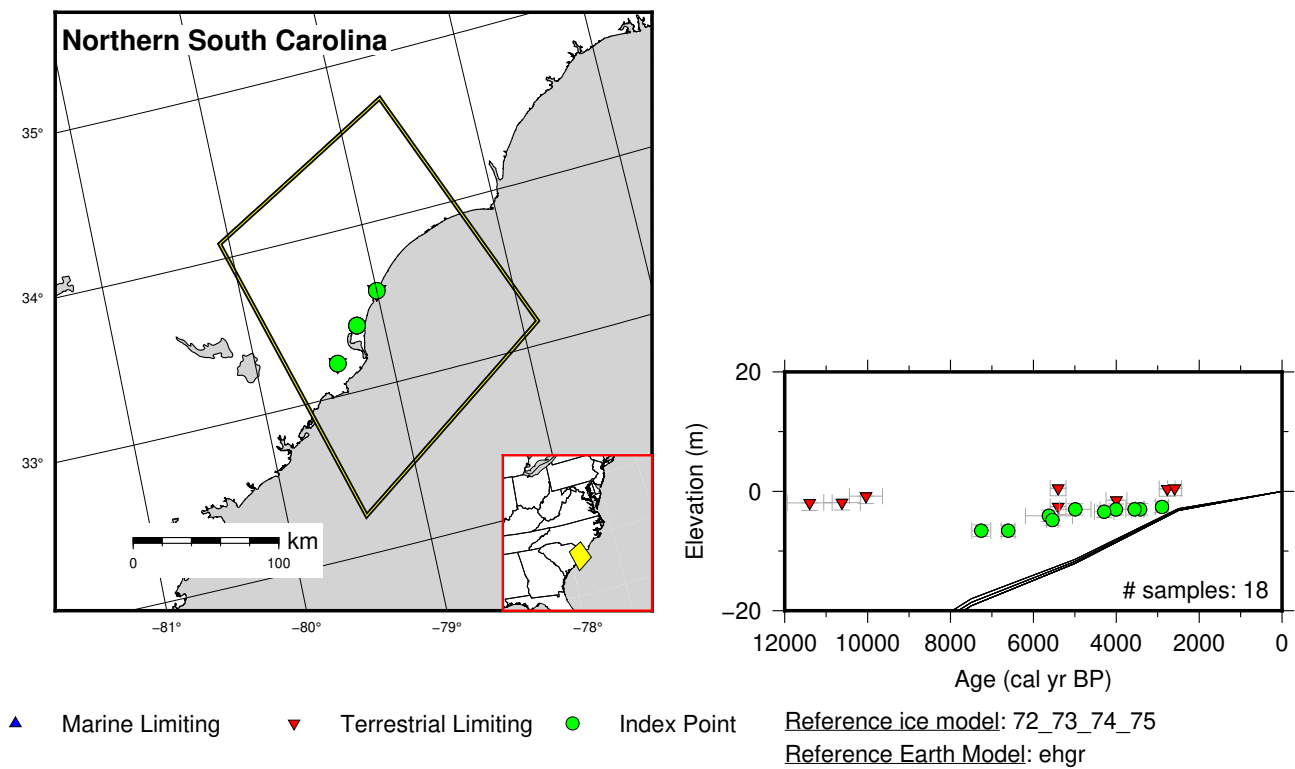
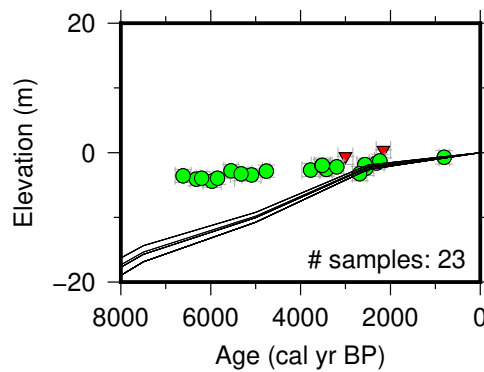
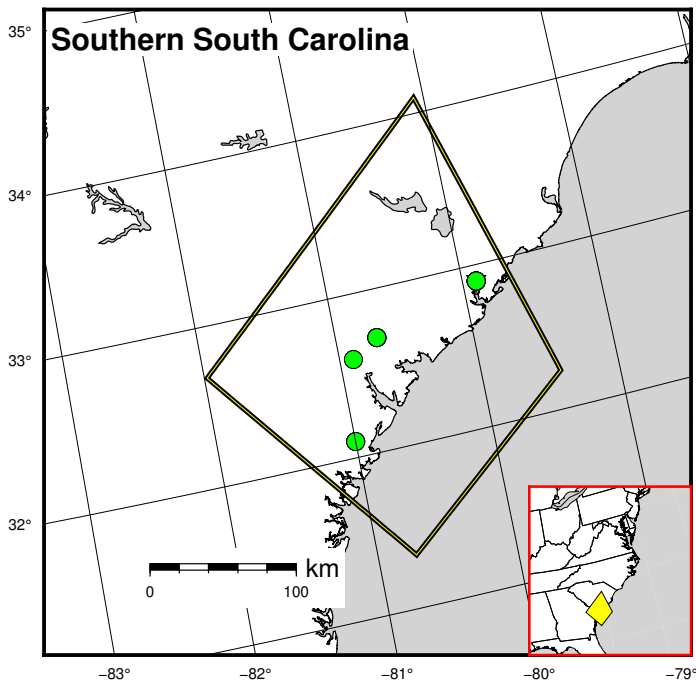


Figure 157: Paleo-sea level and comparison of six models for subregion Eastern United States, location Northern South Carolina.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point

Reference ice model: 72_73_74_75
Reference Earth Model: ehgr

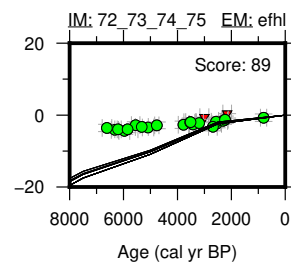
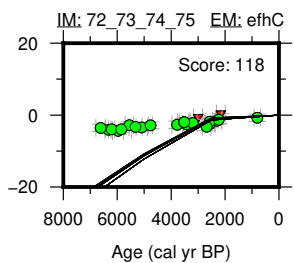
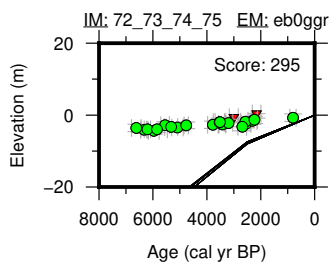
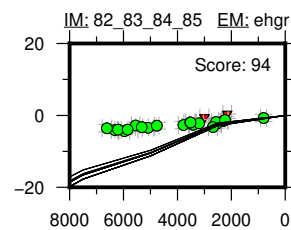
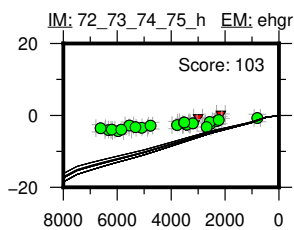
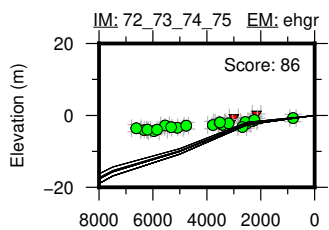


Figure 158: Paleo-sea level and comparison of six models for subregion Eastern United States, location Southern South Carolina.

13.2 Gulf of St Lawrence

References for the data used in each location.

Cape Breton: Blake and Lowdon (1976); Miller and Livingstone (1993); Shaw et al. (2009)

Magdalen Islands: Barnett et al. (2017); Dredge et al. (1992); Rémillard et al. (2016, 2017)

Prince Edward Island: Kranck (1972); McCallum and Wittenberg (1965); McNeely and Brennan (2005); Ogden and Hart (1976); Scott et al. (1981, 1987); Stea and Mott (1989); Walton et al. (1961)

Chaleur Bay: McNeely and Brennan (2005); Rampton et al. (1984)

Anticosti Island: Dubois et al. (1988); Lavoie and Filion (2001); Painchaud et al. (1984)

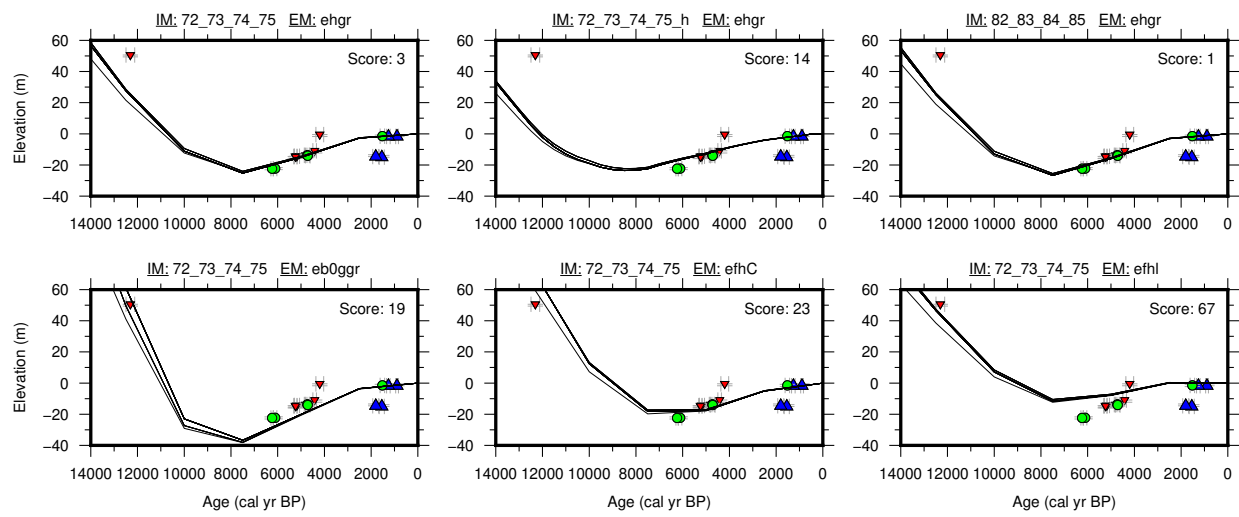
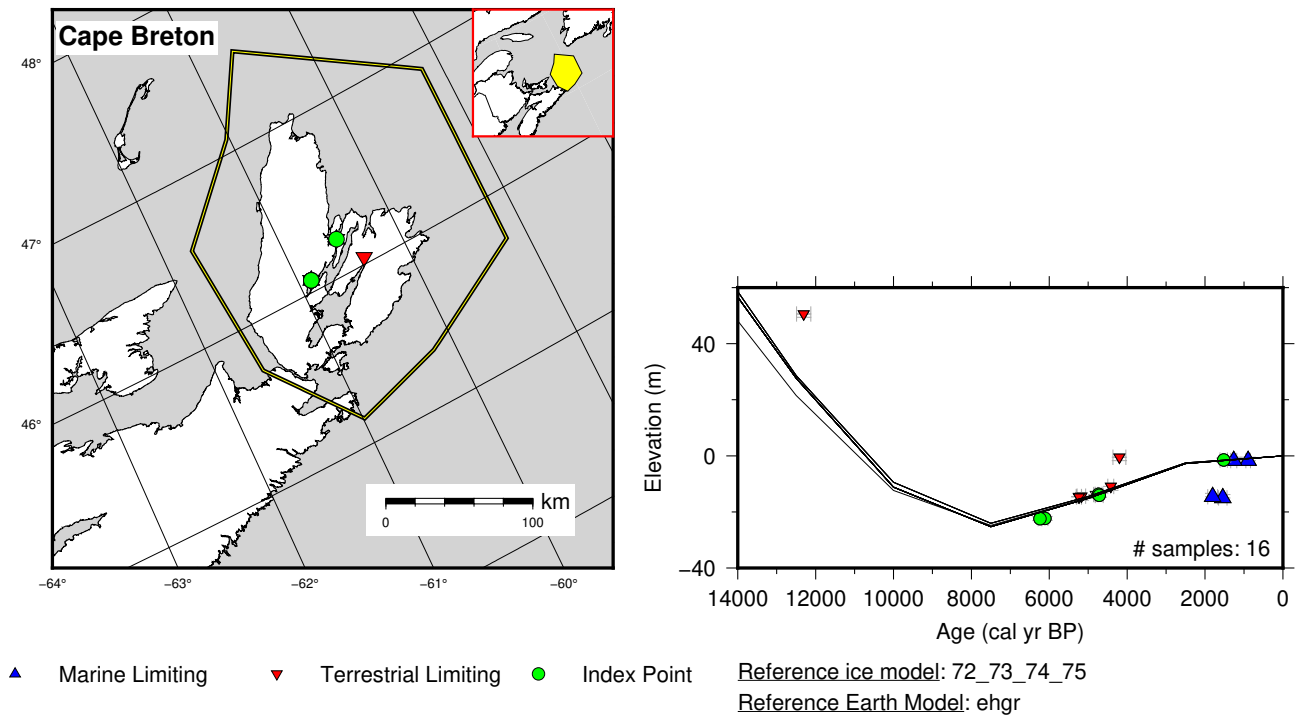


Figure 159: Paleo-sea level and comparison of six models for subregion Gulf of St Lawrence, location Cape Breton.

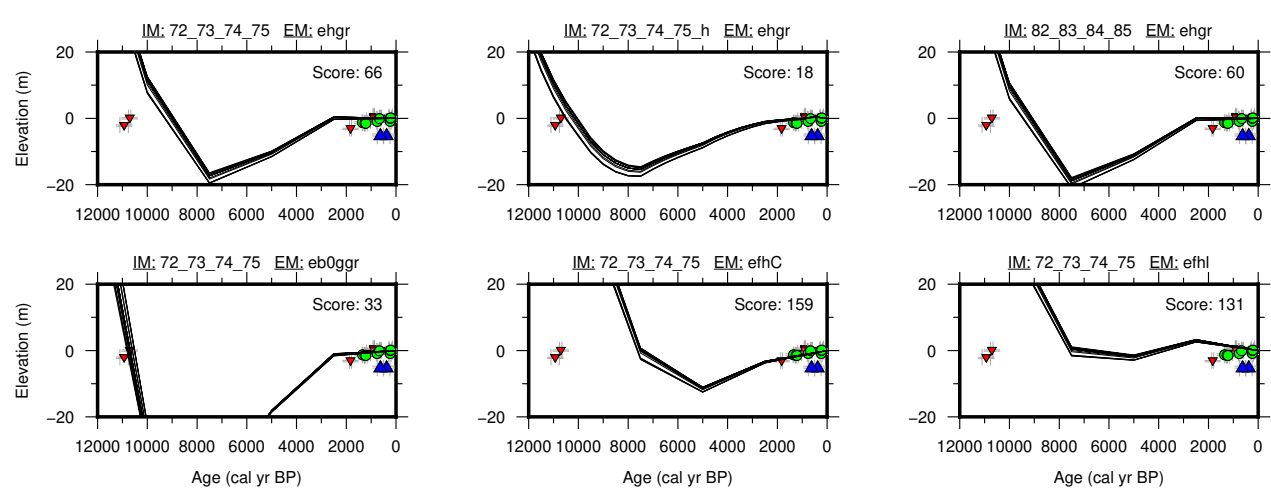
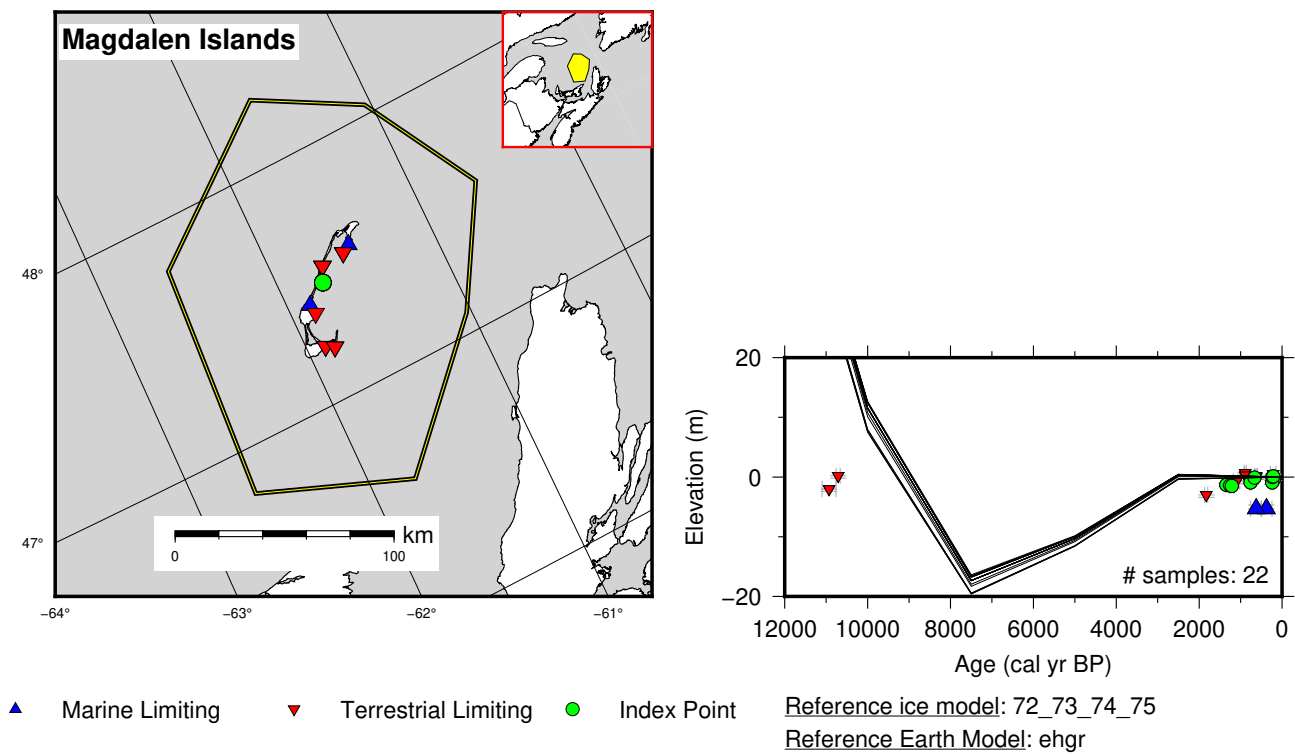


Figure 160: Paleo-sea level and comparison of six models for subregion Gulf of St Lawrence, location Magdalen Islands.

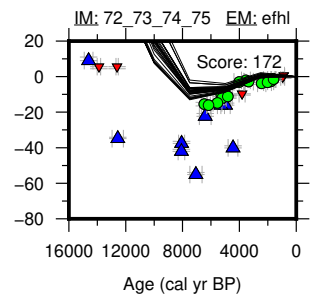
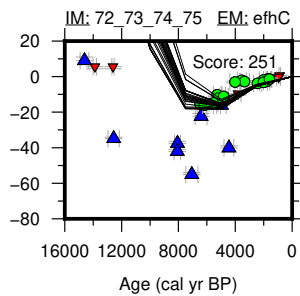
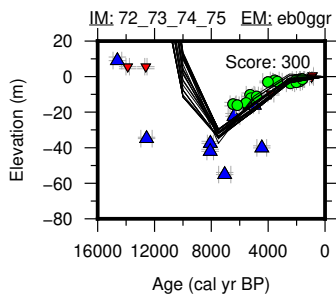
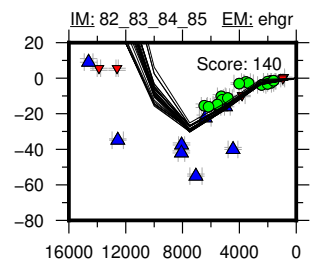
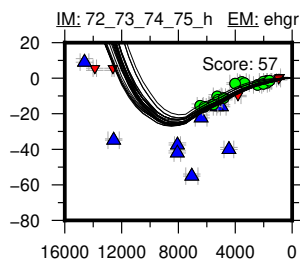
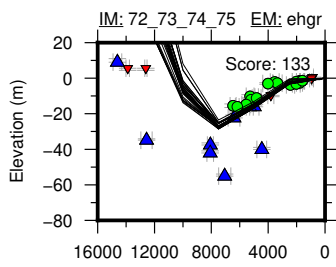
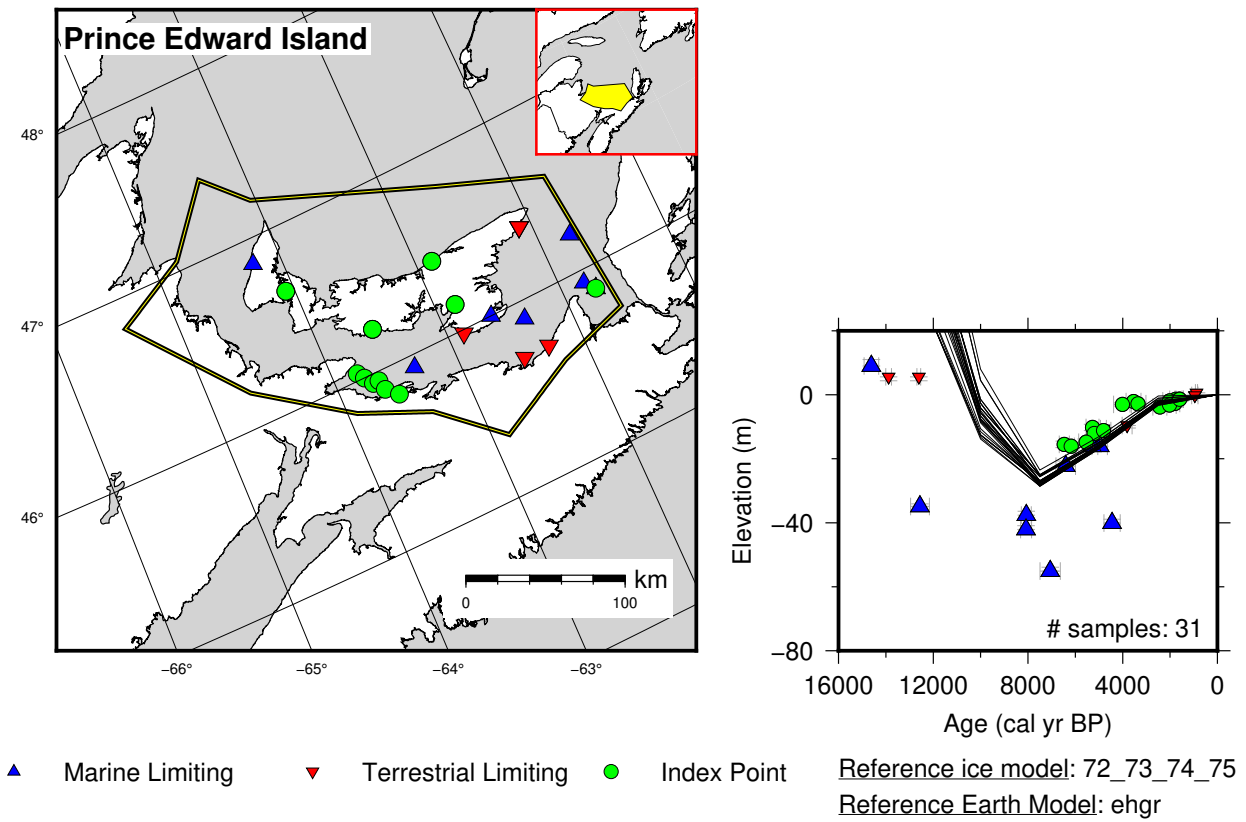


Figure 161: Paleo-sea level and comparison of six models for subregion Gulf of St Lawrence, location Prince Edward Island.

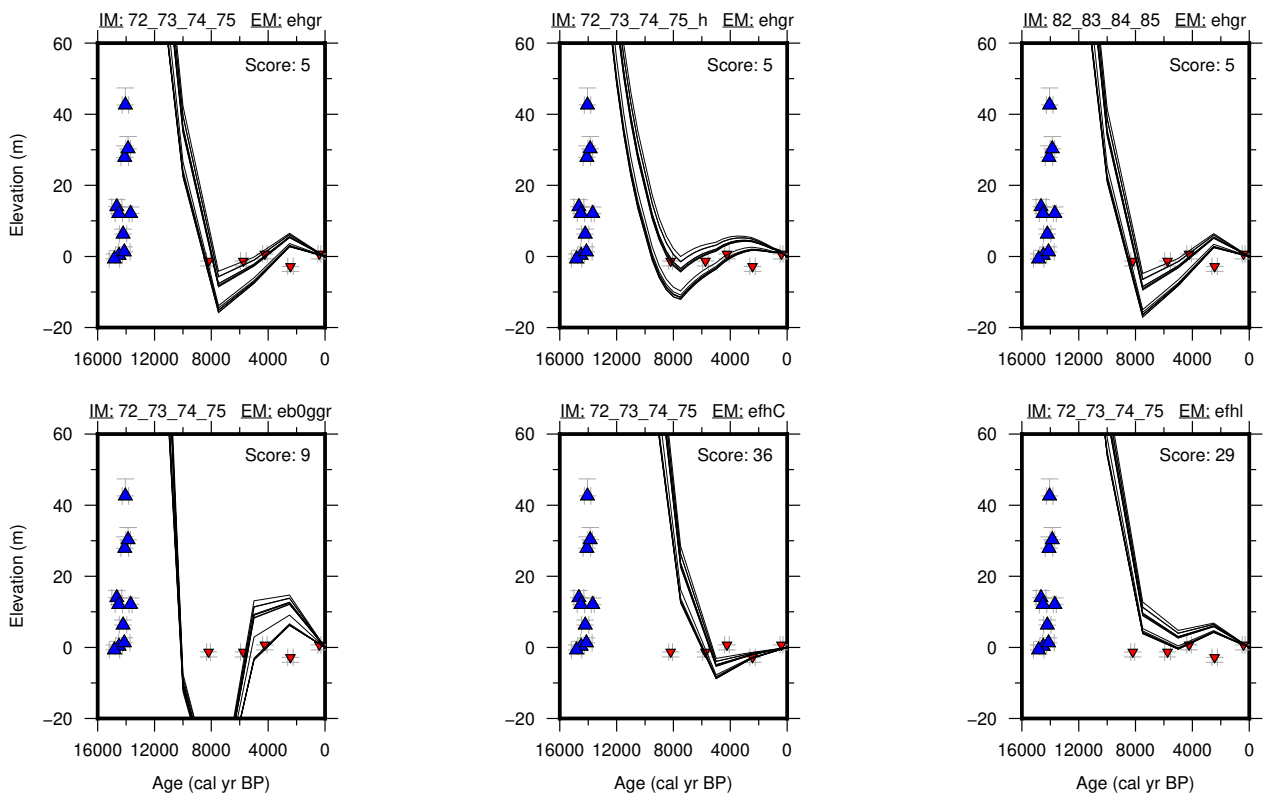
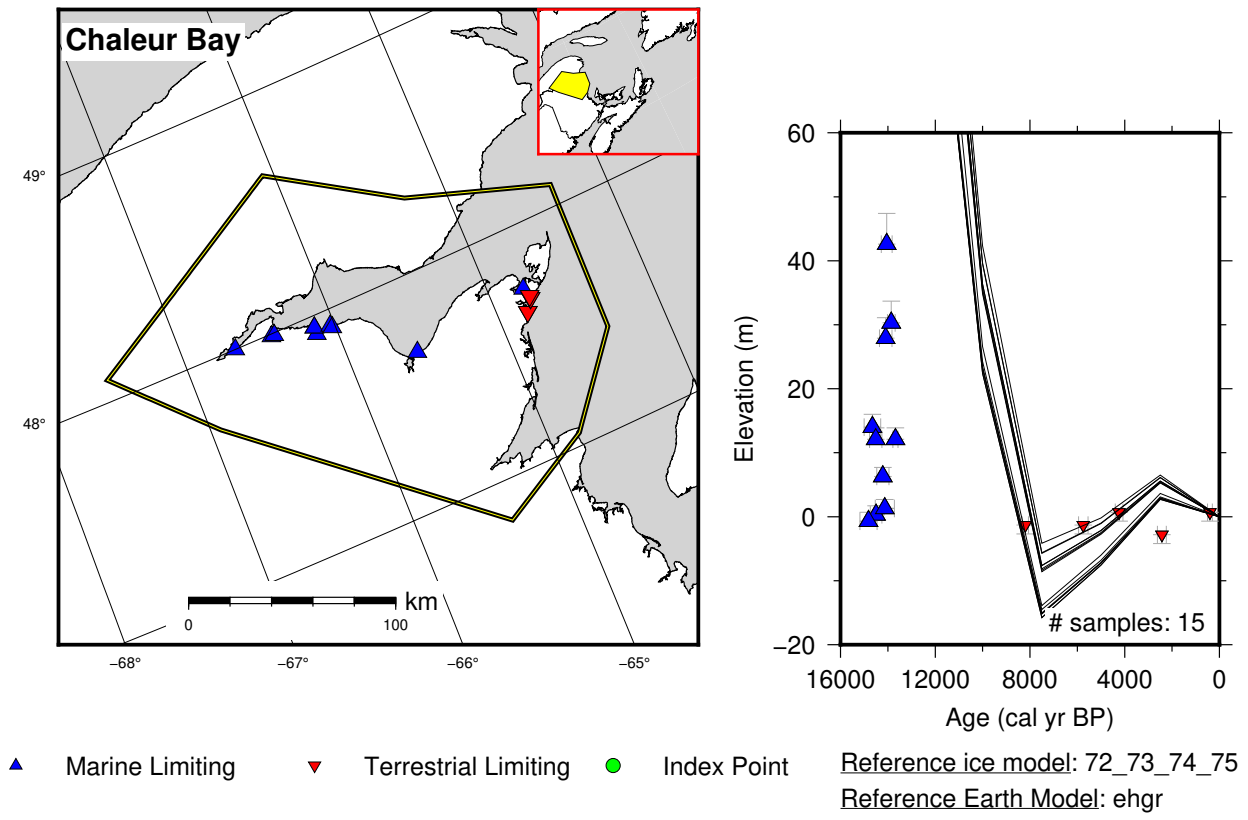


Figure 162: Paleo-sea level and comparison of six models for subregion Gulf of St Lawrence, location Chaleur Bay.

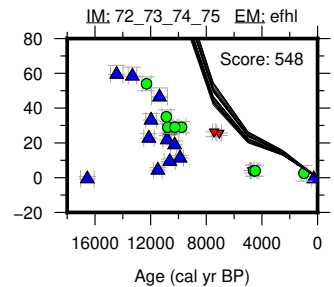
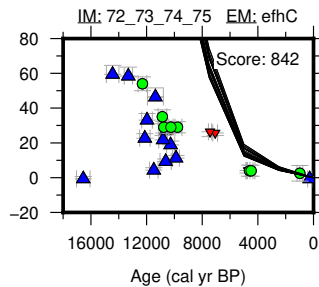
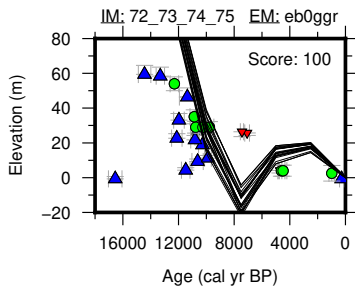
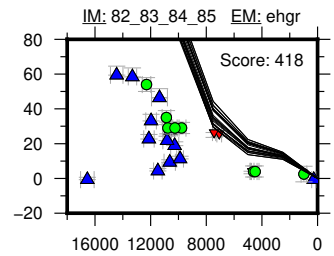
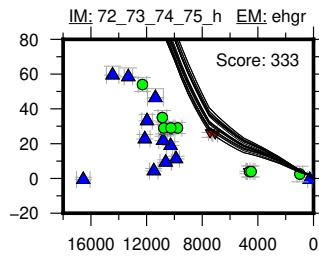
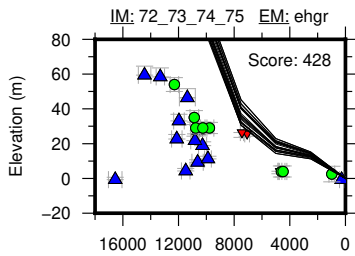
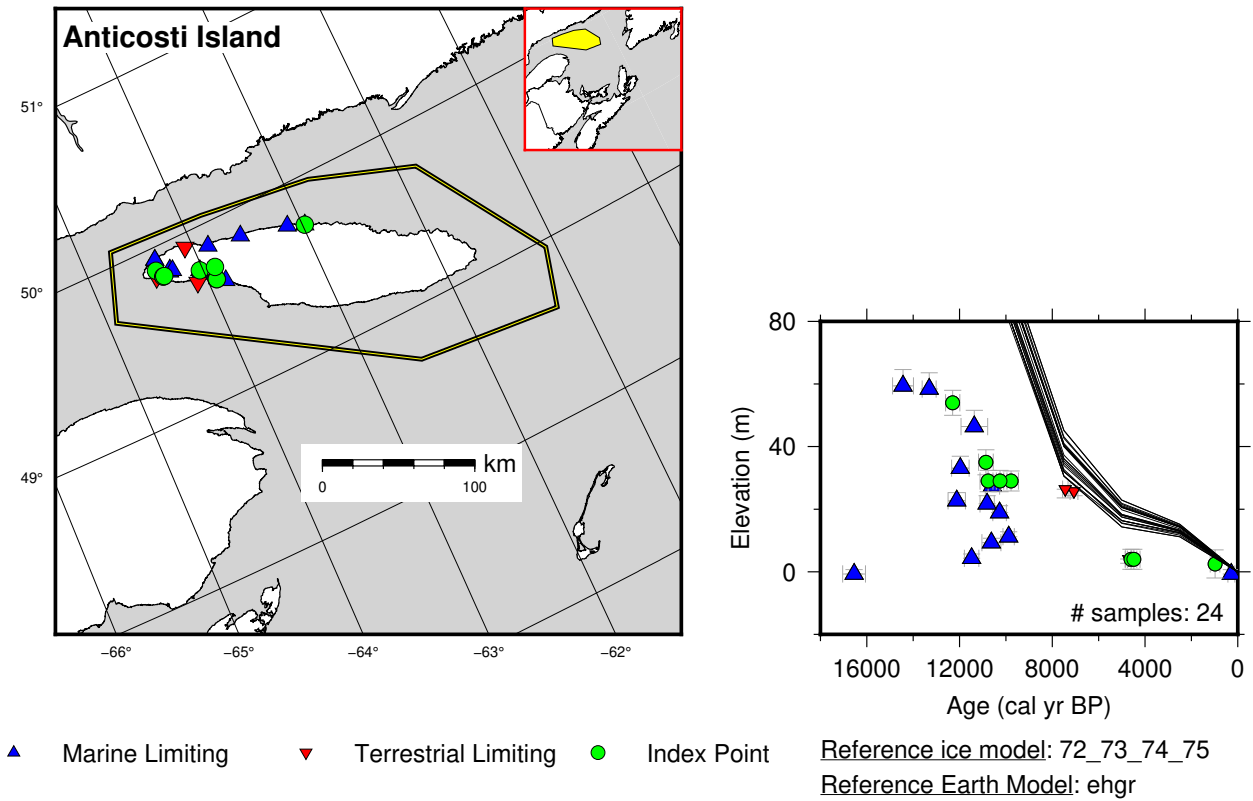


Figure 163: Paleo-sea level and comparison of six models for subregion Gulf of St Lawrence, location Anticosti Island.

13.3 Hudson Bay

References for the data used in each location.

Kivalliq: Aylsworth et al. (1981); Blake (1983, 1986, 1988); Dyck and Fyles (1962); Dyck et al. (1966); Lowdon and Blake (1970); Lowdon and Blake (1979); McNeely and Atkinson (1995); Morrison (1989); Ridler (1974); Rutherford et al. (1973, 1979); Simon et al. (2014); Walton et al. (1961)

Churchill: Anderson and Hodgetts (2007); Andrews and Falconer (1969); Blake (1982, 1988); Dyck and Fyles (1964); Hodgetts (2007); Kuhry (2008); Lowdon and Blake (1973); Lowdon et al. (1971); Meyer (1970); Morlan et al. (2000); Nash (1972); Wagner (1967)

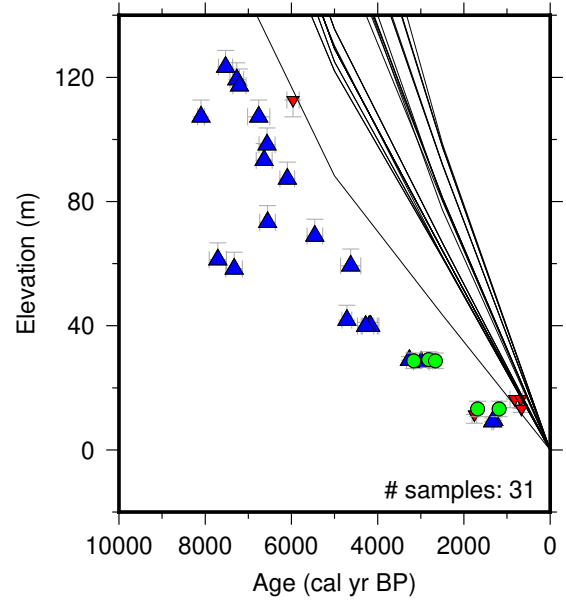
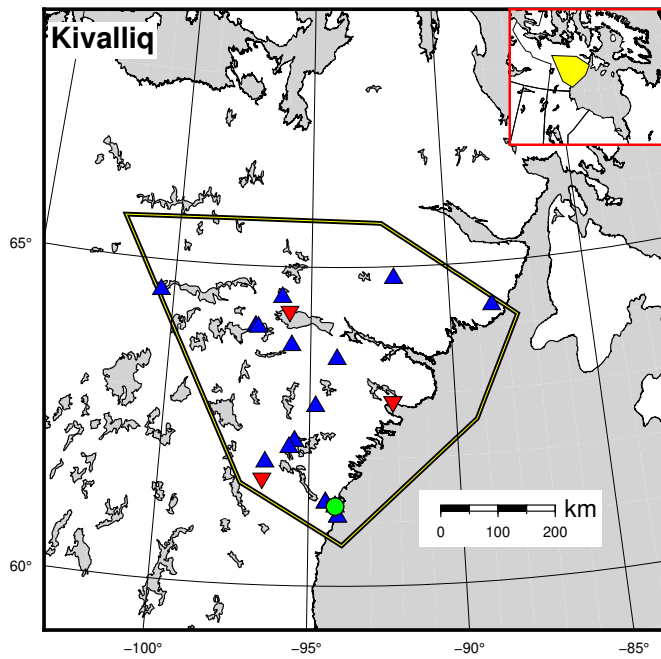
West James Bay: Bunbury et al. (2012); Dyck et al. (1965); Dyke and Peltier (2000a); Glaser et al. (2004); McAndrews et al. (1982); McNeely and Brennan (2005); Vogel and Waterbolk (1972); Webber et al. (1970)

East James Bay: Beaulieu-Audy et al. (2009); Farrand (1962); Hardy (1976); Pendea et al. (2010)

Umiujaq: Allard and Seguin (1985); Allard and Tremblay (1983a,b); Cayer (2003); Filion et al. (1991); Gajewski and Garralla (1992); Hillaire-Marcel (1976); Lajeunesse and Allard (2003); Lamarre et al. (2012); Lavoie et al. (2012); Lowdon and Blake (1980); Lowdon et al. (1967); McNeely (2006); Plumet (1974); Saulnier-Talbot and Pienitz (2001); Walcott and Craig (1975)

Inukjuak: Andrews and Falconer (1969); Andrews and Short (1983); Buckley and Willis (1970); Harington (2003); Lauriol and Gray (1997); Lemieux et al. (2011); Lowdon and Blake (1968); Saint-Laurent and Filion (1992); Wagner (1967)

Ivujivik: Daigneault (2008); Harington (2003); Martindale et al. (2020); Matthews (1966, 1967); McNeely and Brennan (2005); Wagner (1967)



▲ Marine Limiting
 ▼ Terrestrial Limiting
 ● Index Point
 Reference ice model: 72_73_74_75
 Reference Earth Model: ehgr

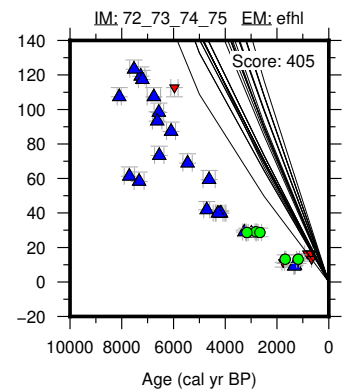
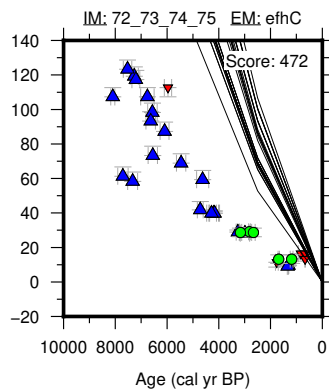
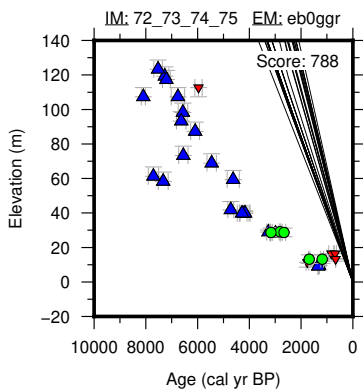
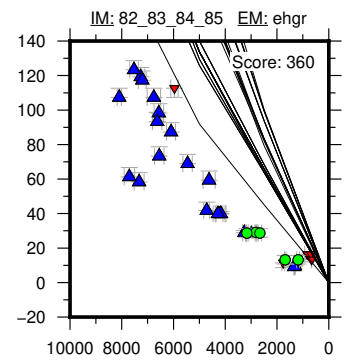
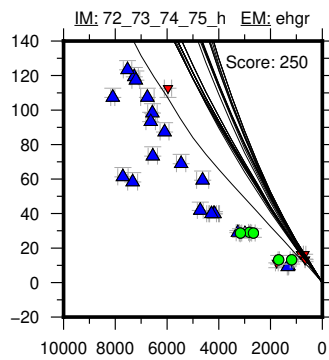
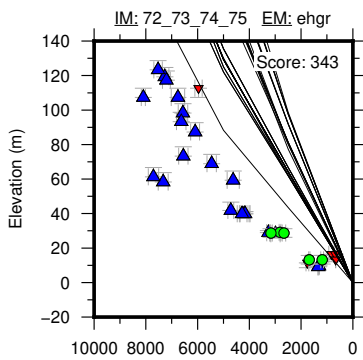


Figure 164: Paleo-sea level and comparison of six models for subregion Hudson Bay, location Kivalliq.

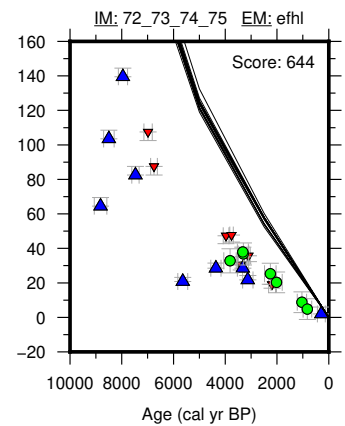
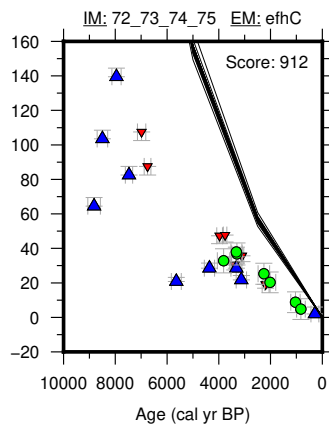
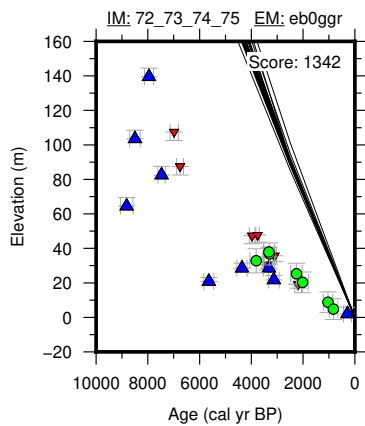
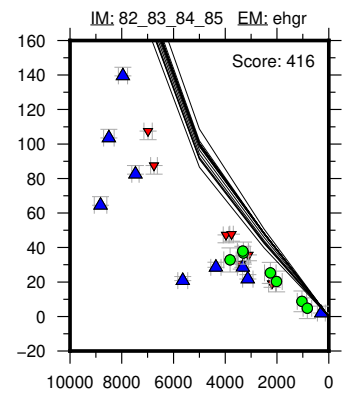
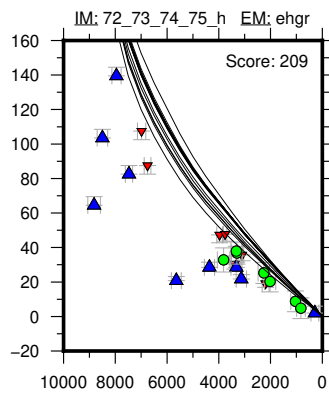
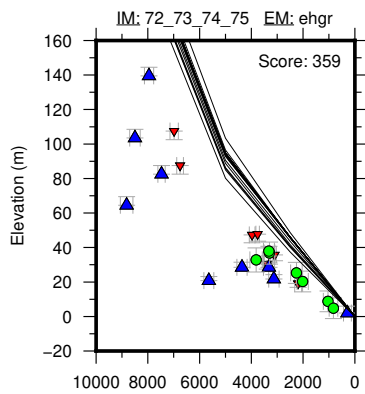
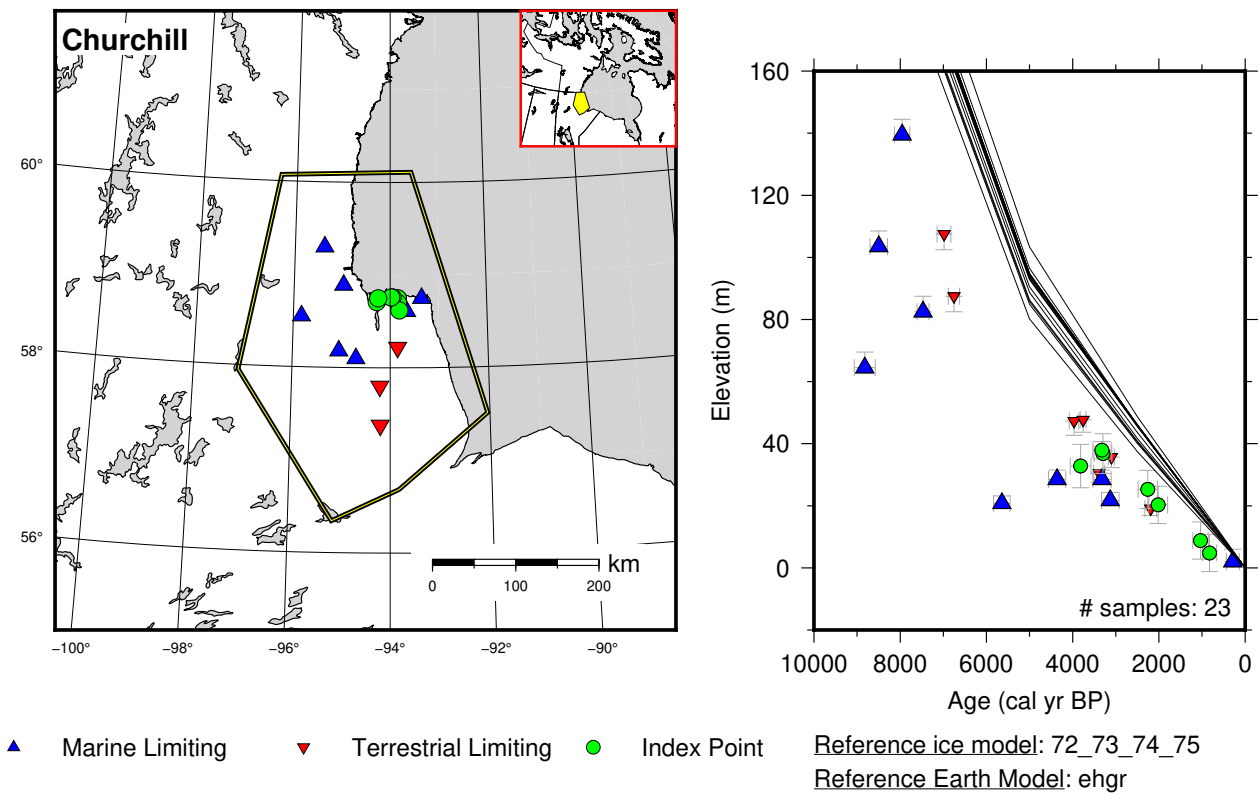


Figure 165: Paleo-sea level and comparison of six models for subregion Hudson Bay, location Churchill.

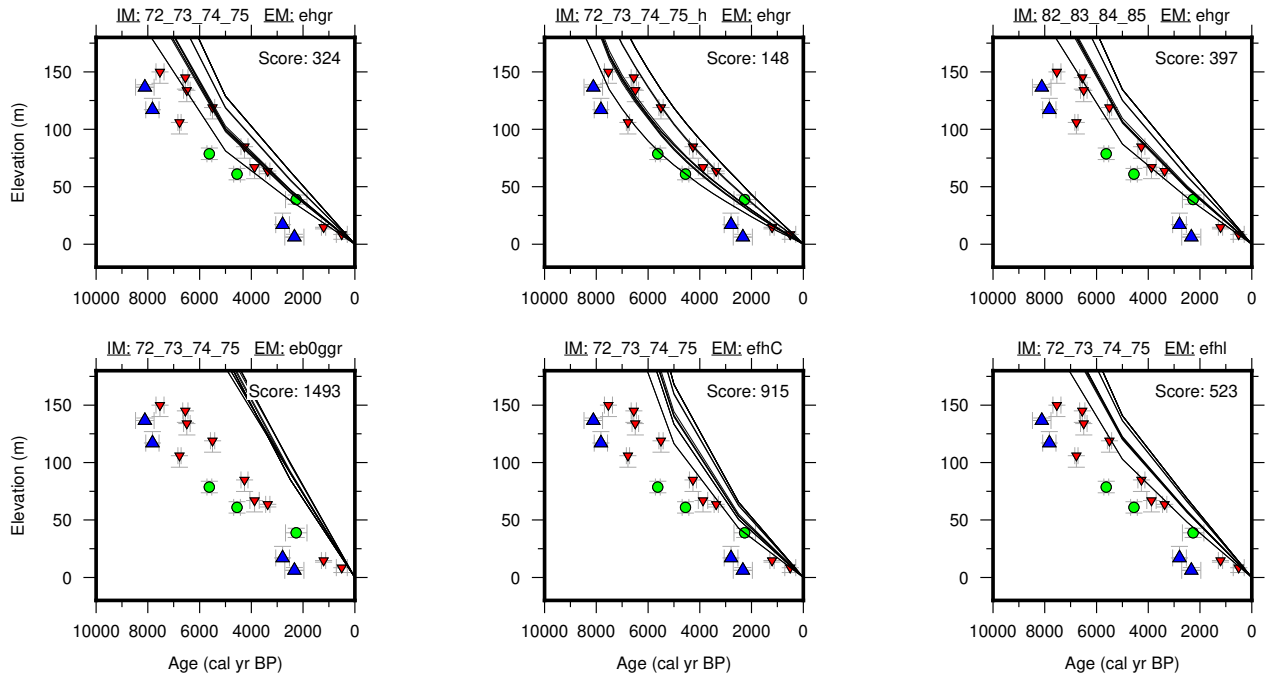
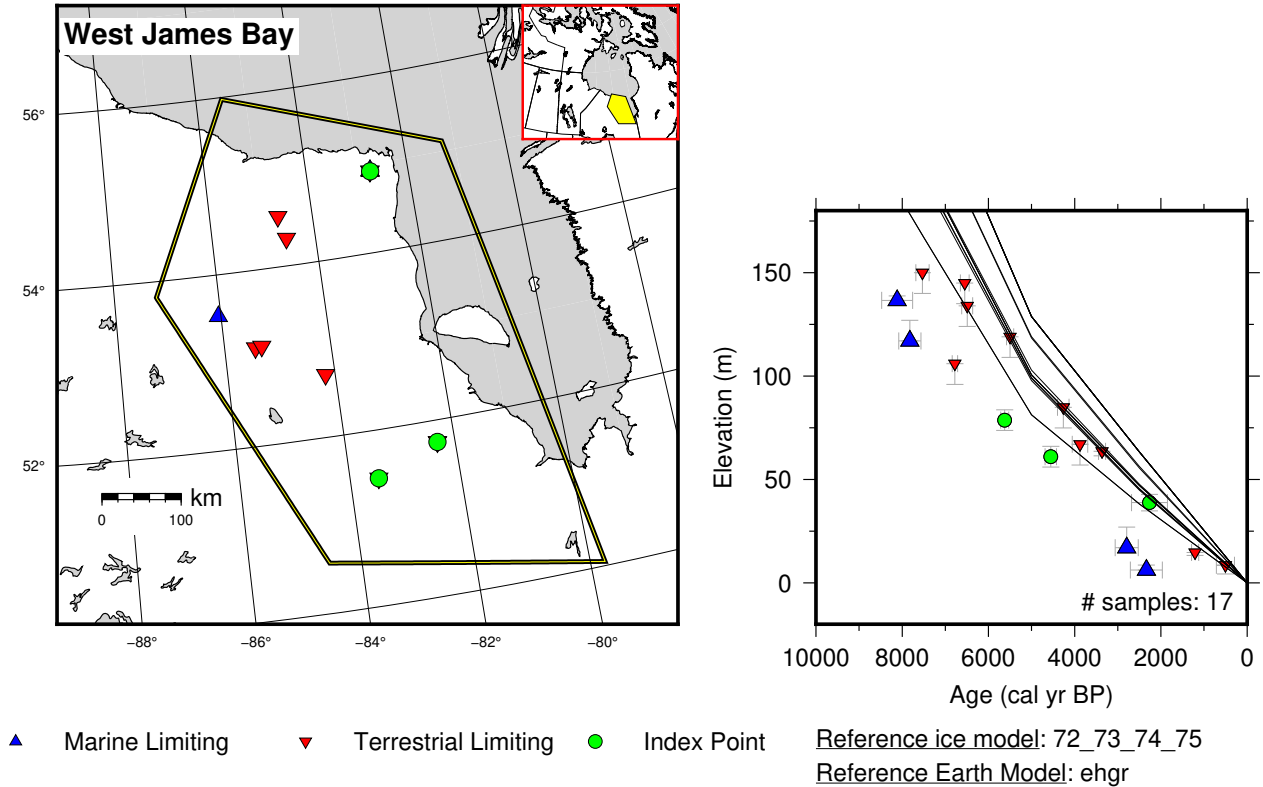
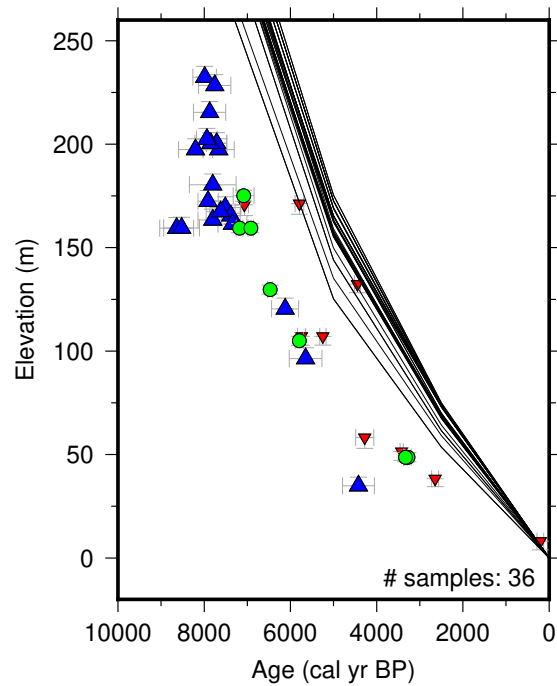
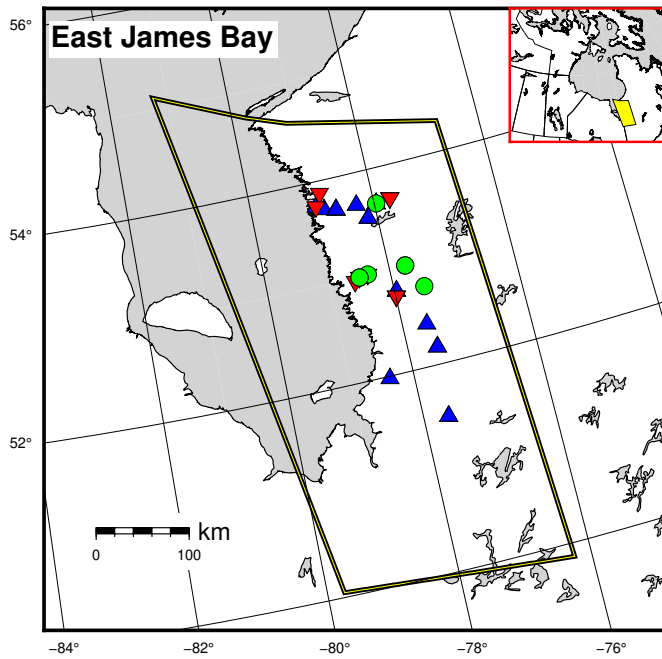


Figure 166: Paleo-sea level and comparison of six models for subregion Hudson Bay, location West James Bay.



▲ Marine Limiting
 ▼ Terrestrial Limiting
 ● Index Point
 Reference ice model: 72_73_74_75
 Reference Earth Model: ehgr

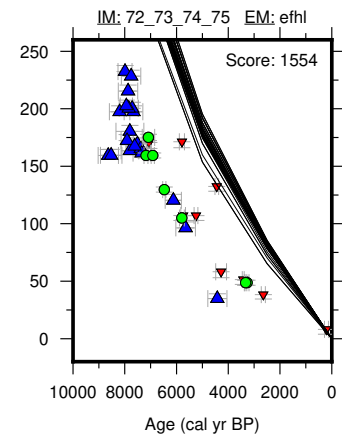
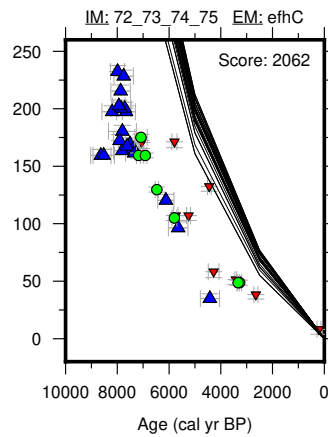
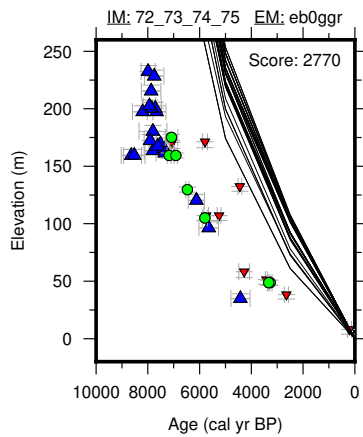
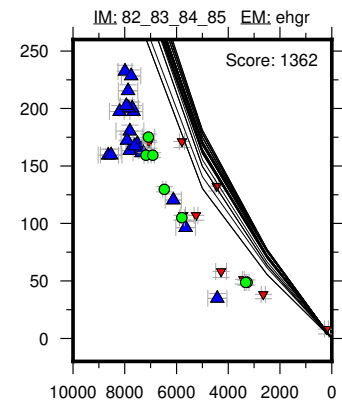
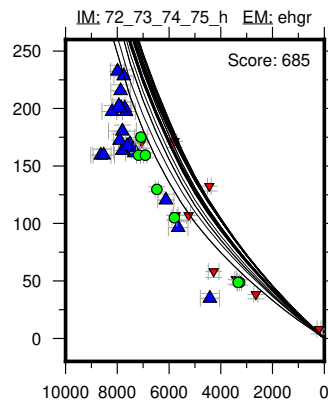
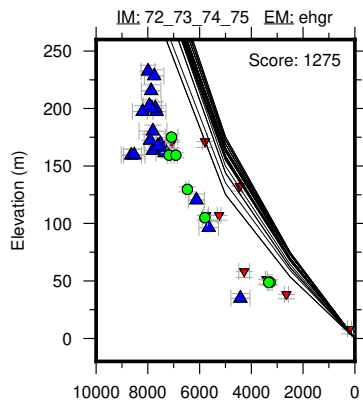


Figure 167: Paleo-sea level and comparison of six models for subregion Hudson Bay, location East James Bay.

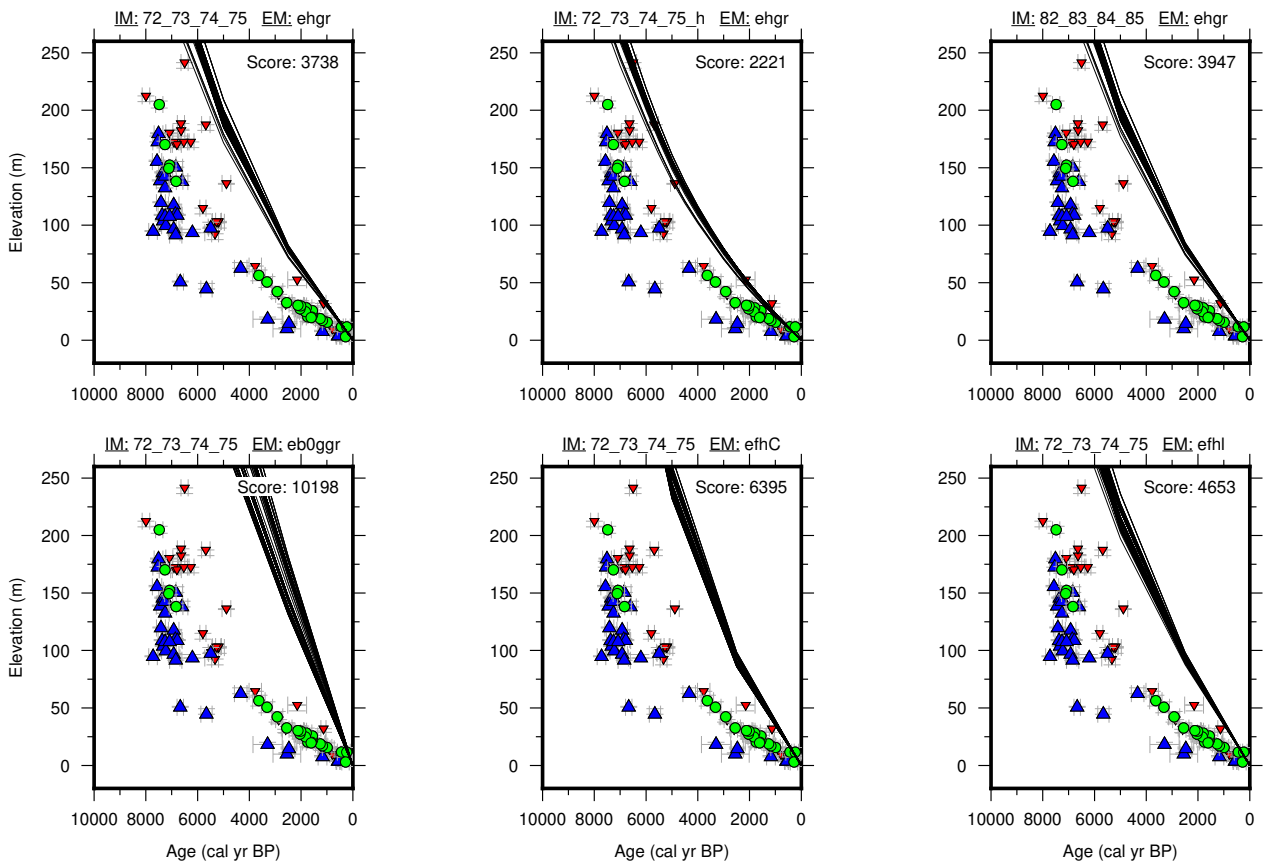
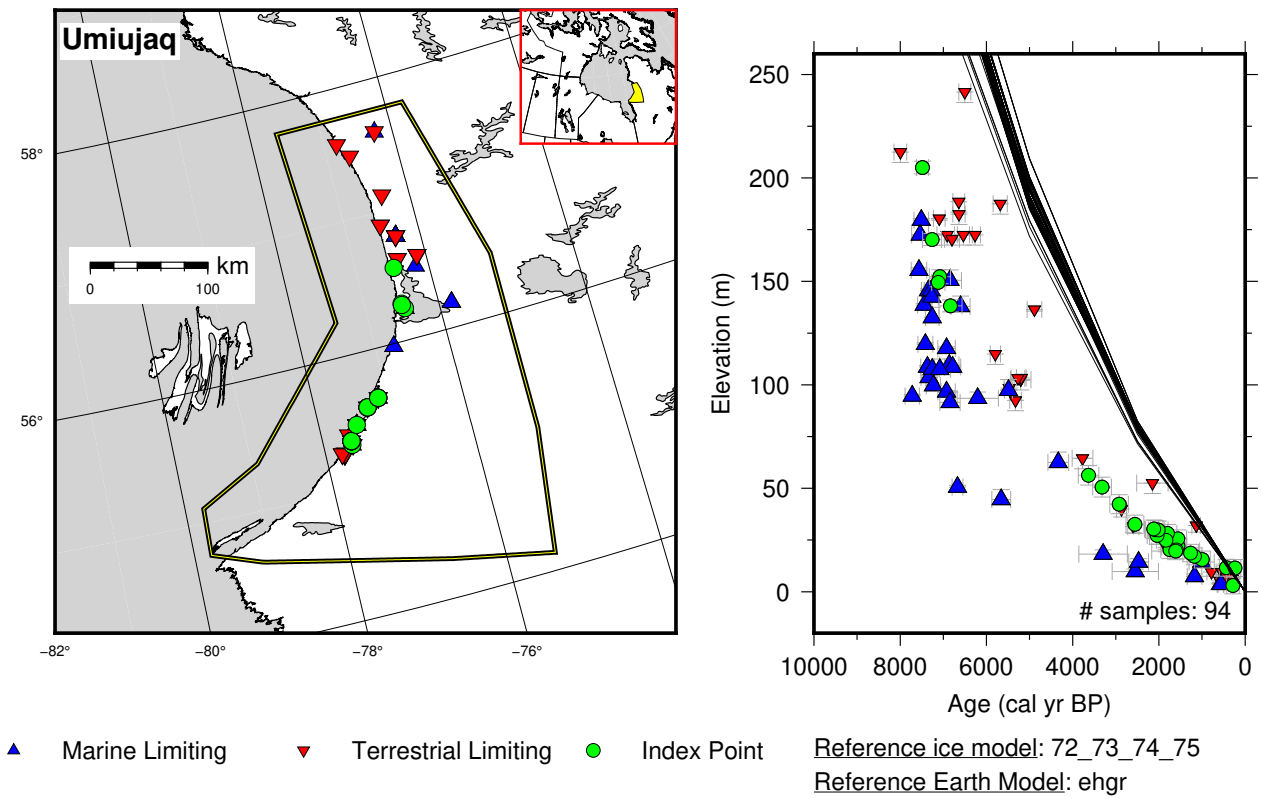


Figure 168: Paleo-sea level and comparison of six models for subregion Hudson Bay, location Umiujaq.

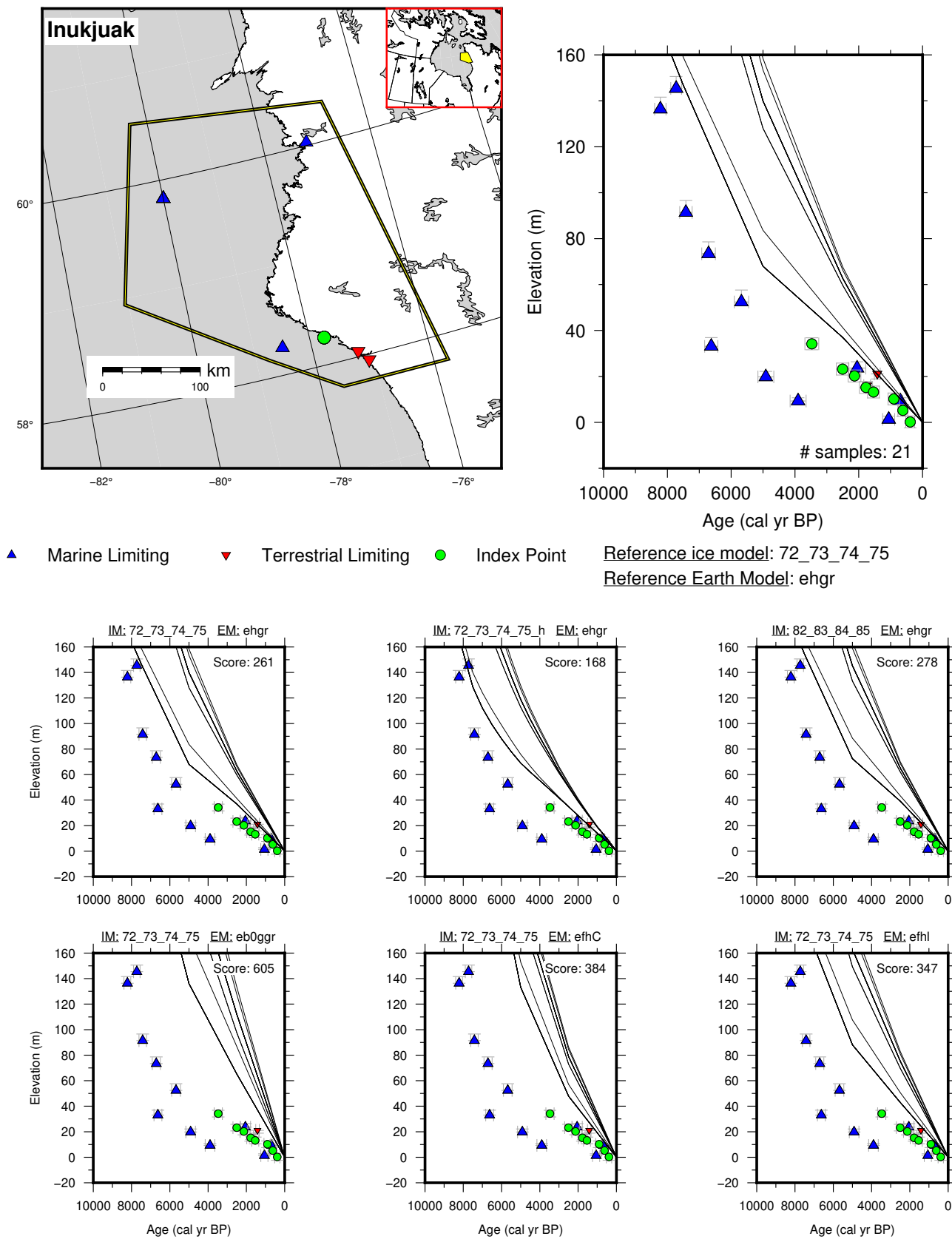


Figure 169: Paleo-sea level and comparison of six models for subregion Hudson Bay, location Inukjuak.

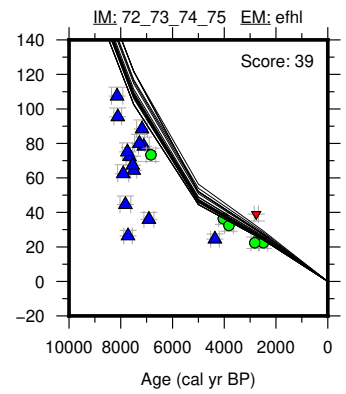
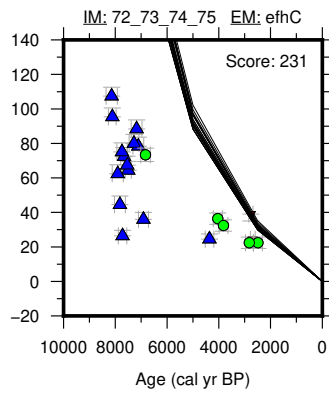
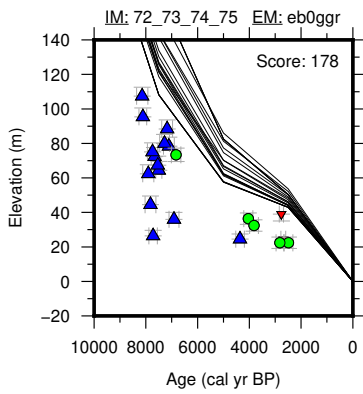
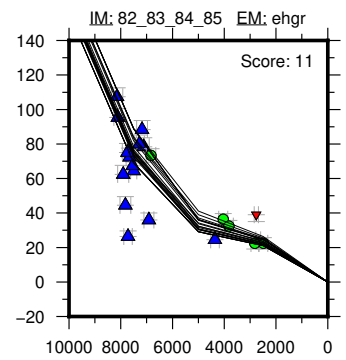
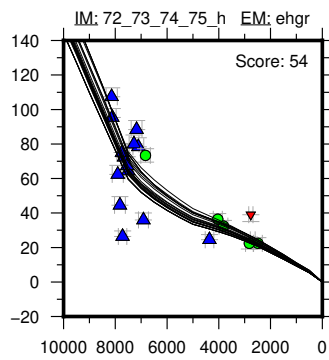
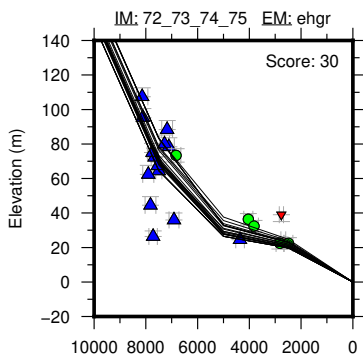
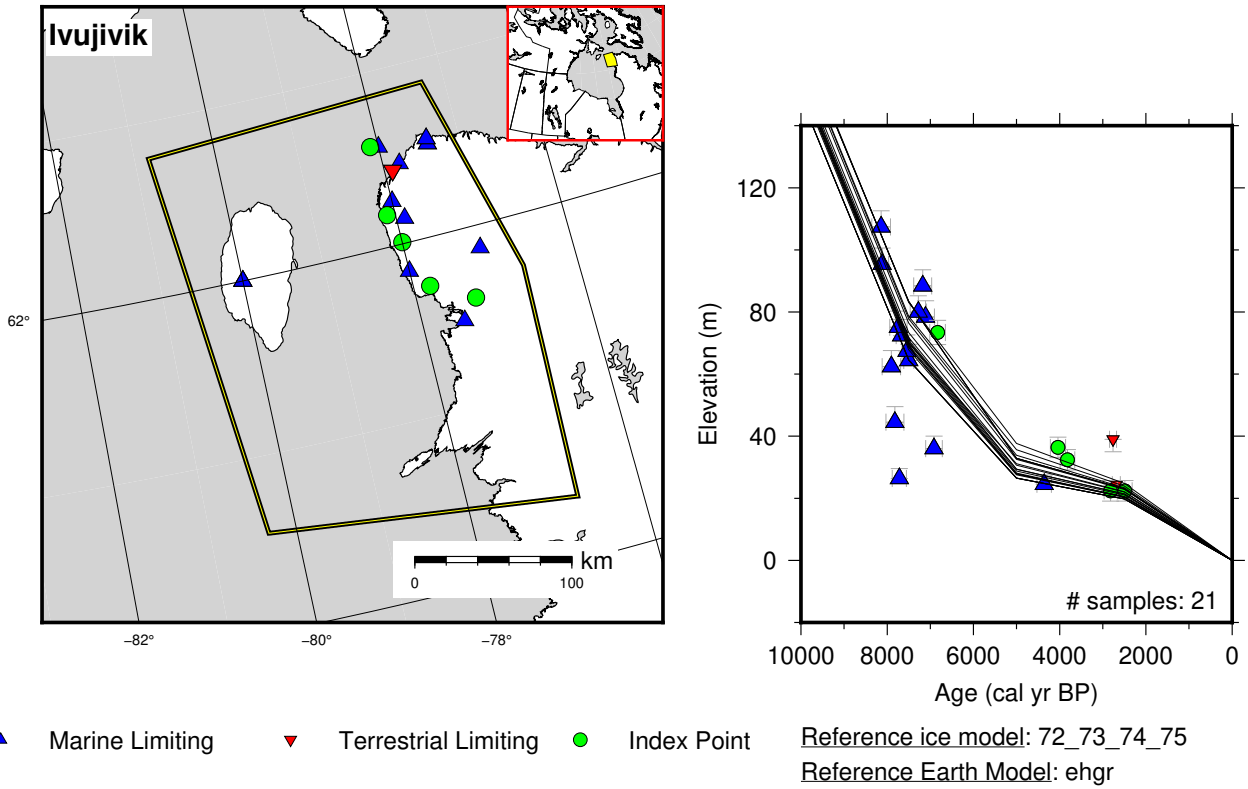


Figure 170: Paleo-sea level and comparison of six models for subregion Hudson Bay, location Ivujuvik.

13.4 Hudson Strait

References for the data used in each location.

Sugluk: Bartley and Matthews (1969); Daigneault (2008); Gray et al. (1993); Gray (2001); Gray and Lauriol (1985); Kasper and Allard (2001); Lauriol and Gray (1997); Lowdon and Blake (1968); Matthews (1966); McNeely and Brennan (2005); McNeely and McCuaig (1991); Ricard (1989); Simon et al. (2016)

Kangiqsujuaq: Gray et al. (1993); Gray (2001); Lauriol and Gray (1987); McNeely (2002, 2005); McNeely and Atkinson (1995); Vacchi et al. (2018)

Western Ungava Bay: Gray et al. (1980); Lauriol and Gray (1987); Lauriol et al. (1979); Løken (1978); Simon et al. (2016)

Southern Ungava Bay: Gray et al. (1993); Gray (2001); Pienitz et al. (1991); Simon et al. (2016)

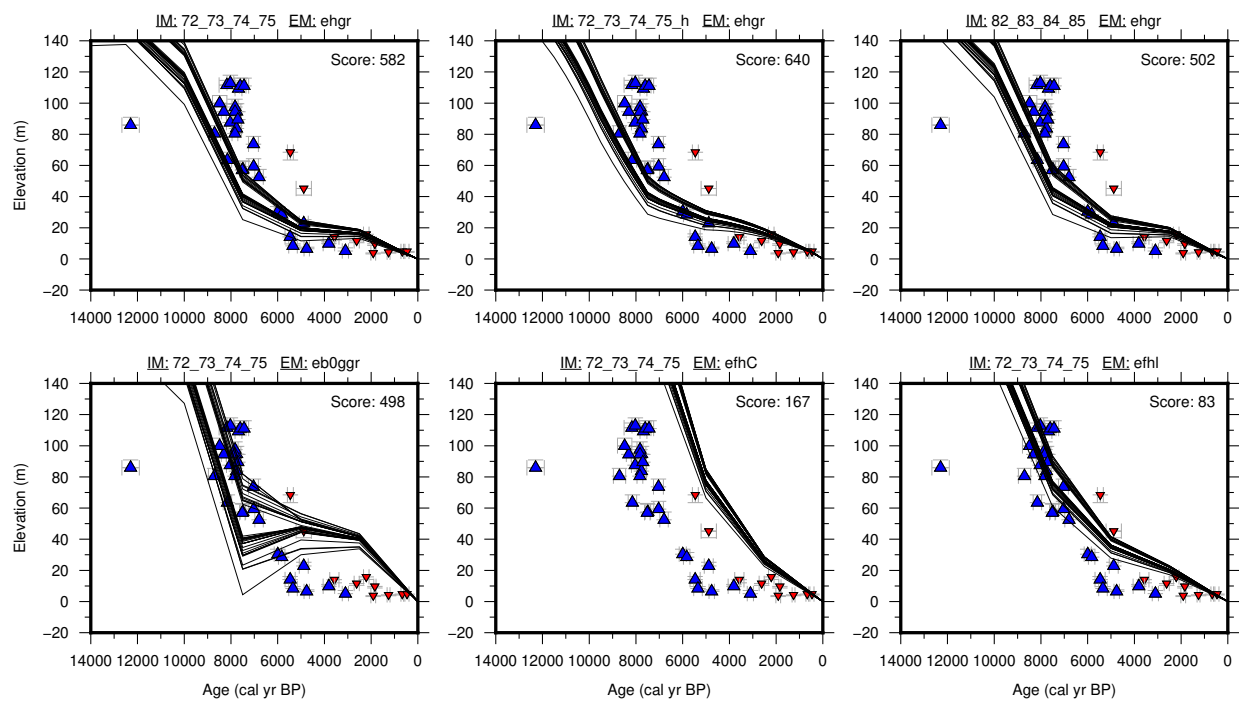
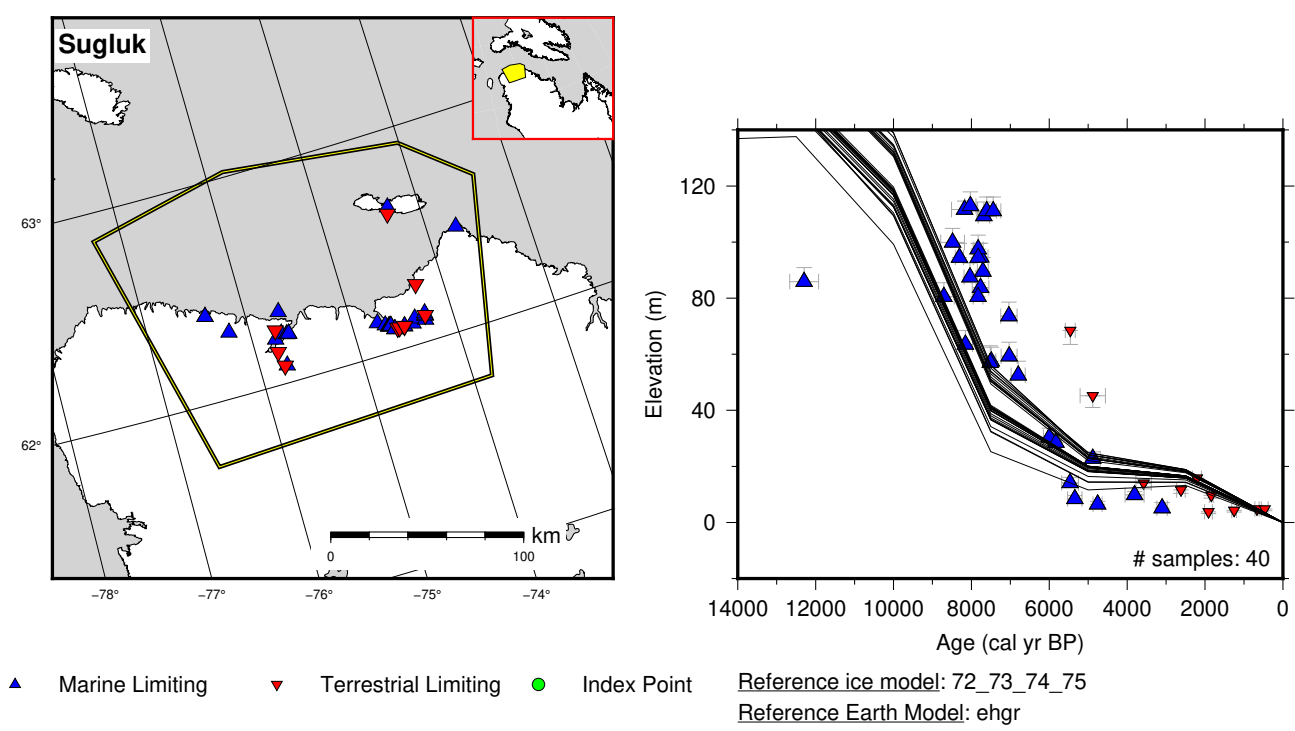
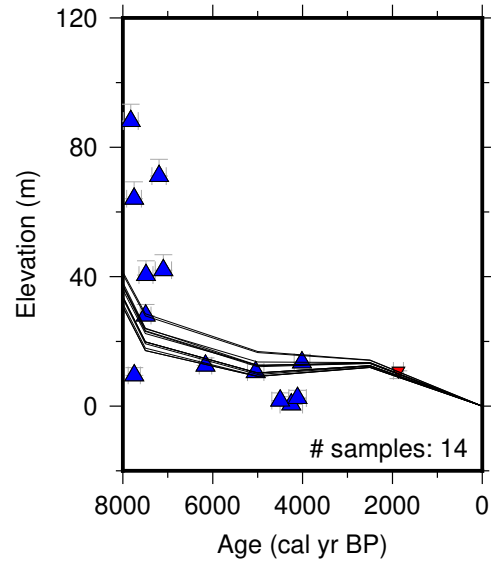
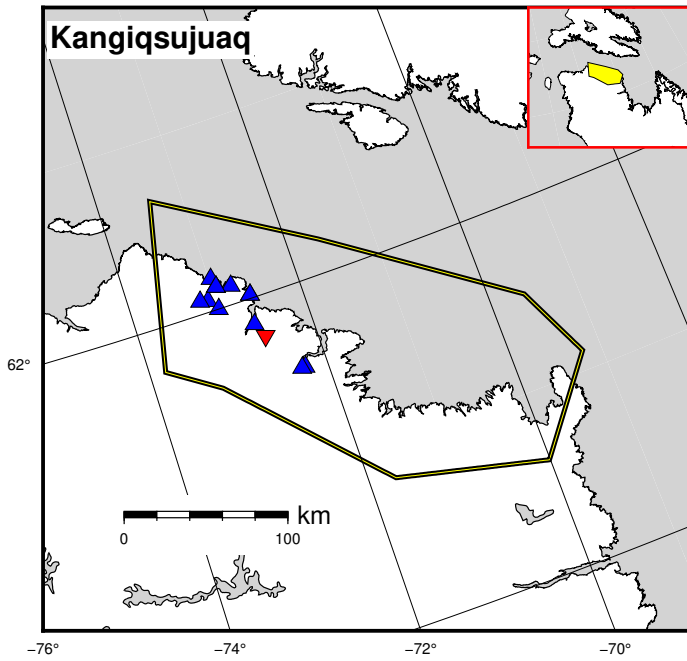


Figure 171: Paleo-sea level and comparison of six models for subregion Hudson Strait, location Sugluk.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point

Reference ice model: 72_73_74_75
Reference Earth Model: ehgr

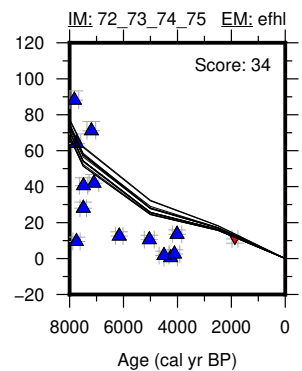
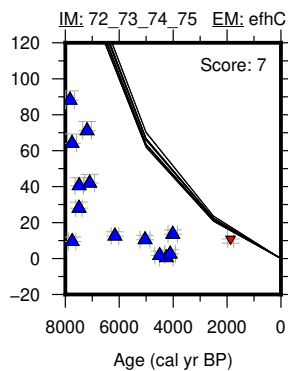
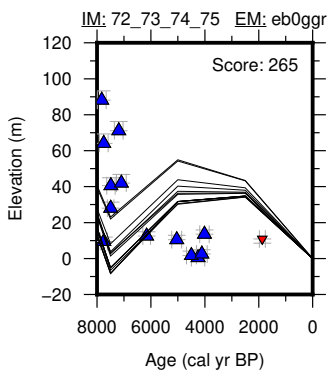
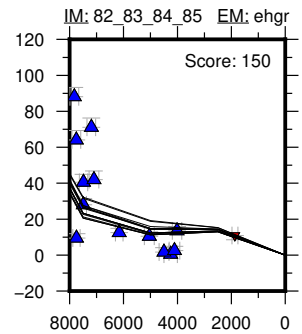
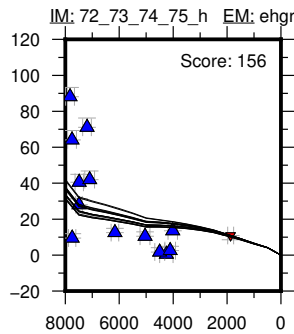
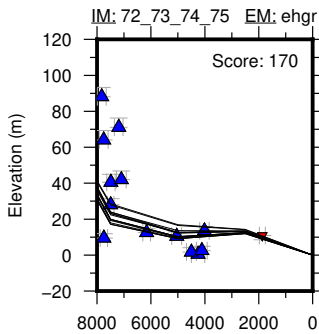


Figure 172: Paleo-sea level and comparison of six models for subregion Hudson Strait, location Kangiqsuuaq.

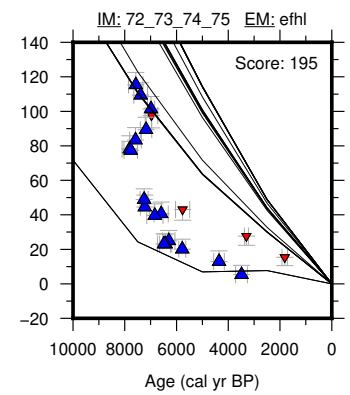
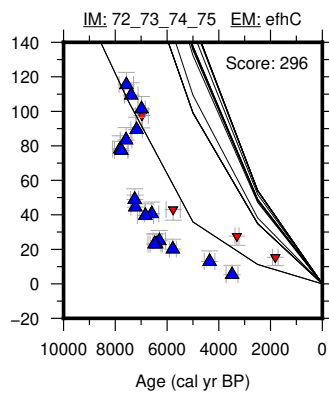
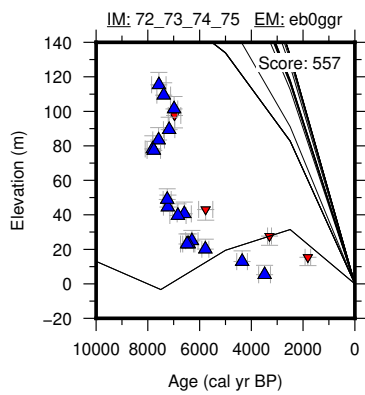
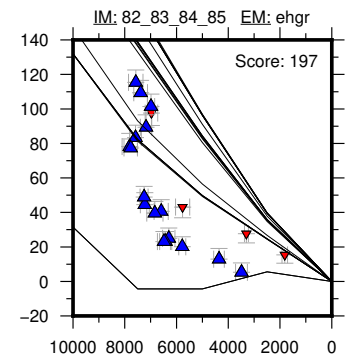
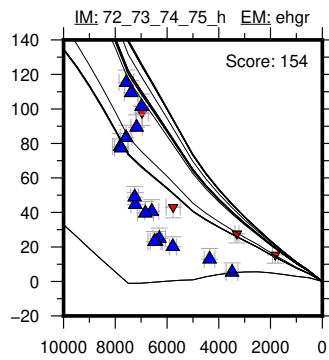
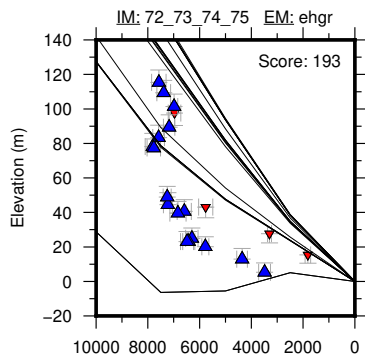
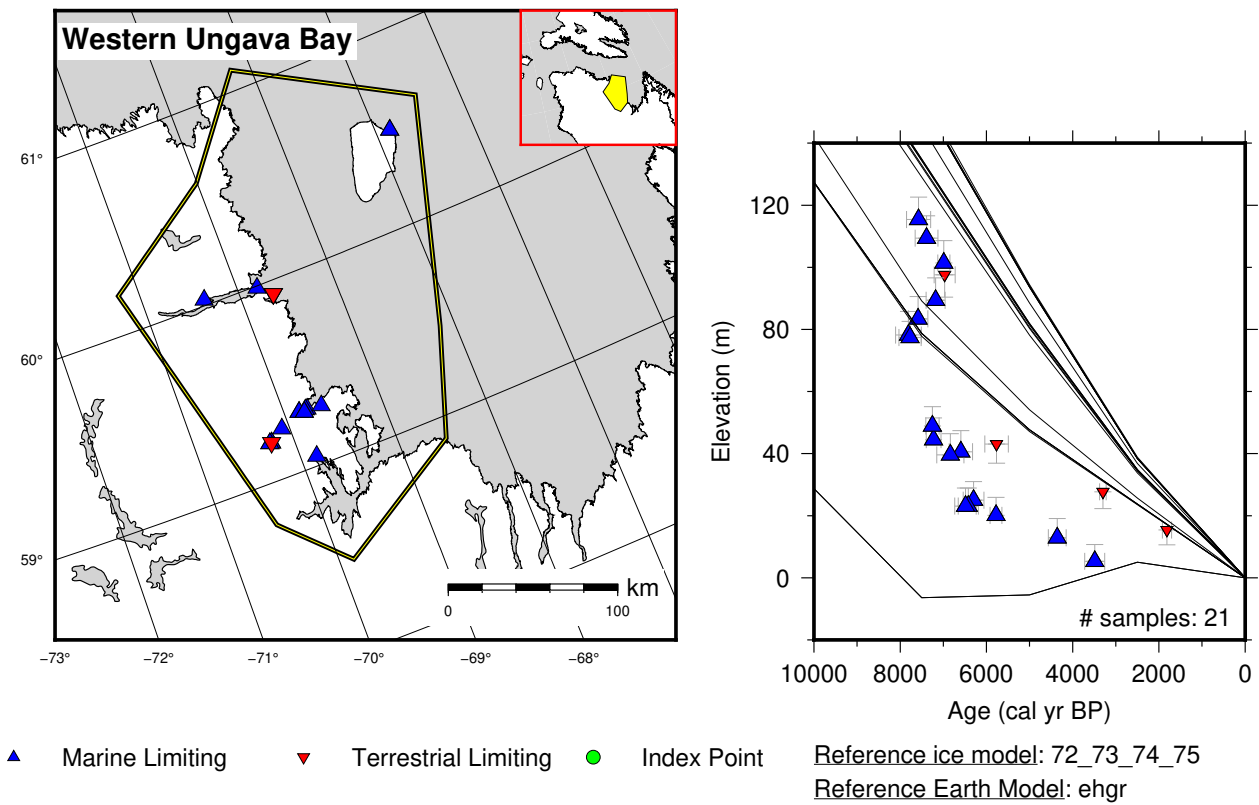


Figure 173: Paleo-sea level and comparison of six models for subregion Hudson Strait, location Western Ungava Bay.

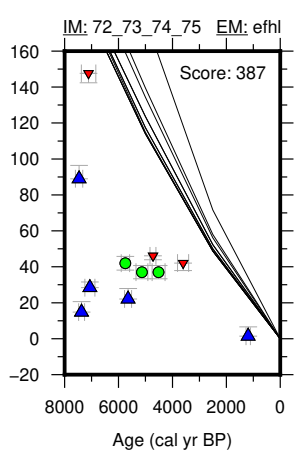
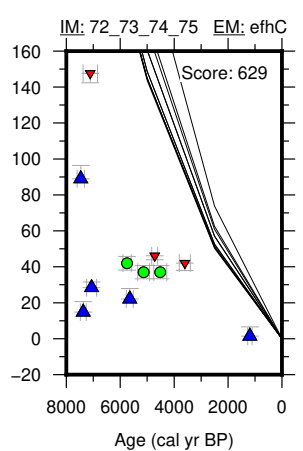
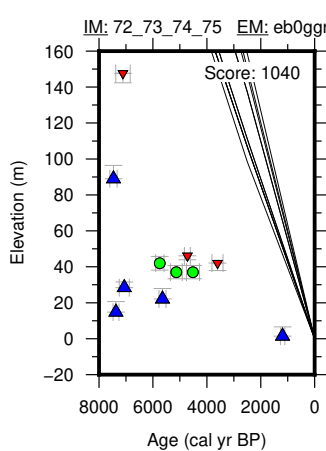
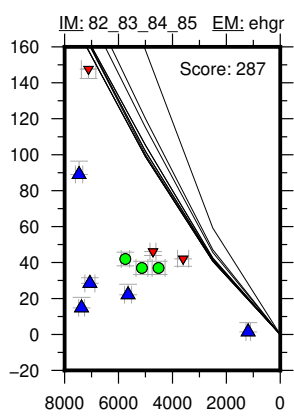
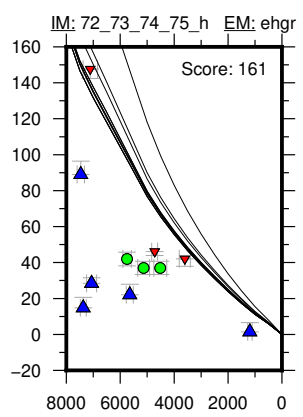
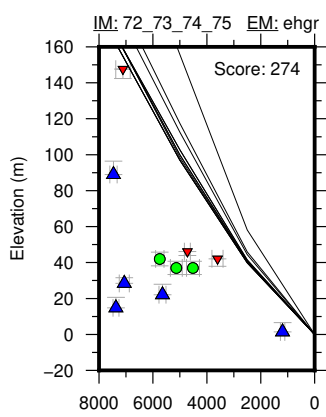
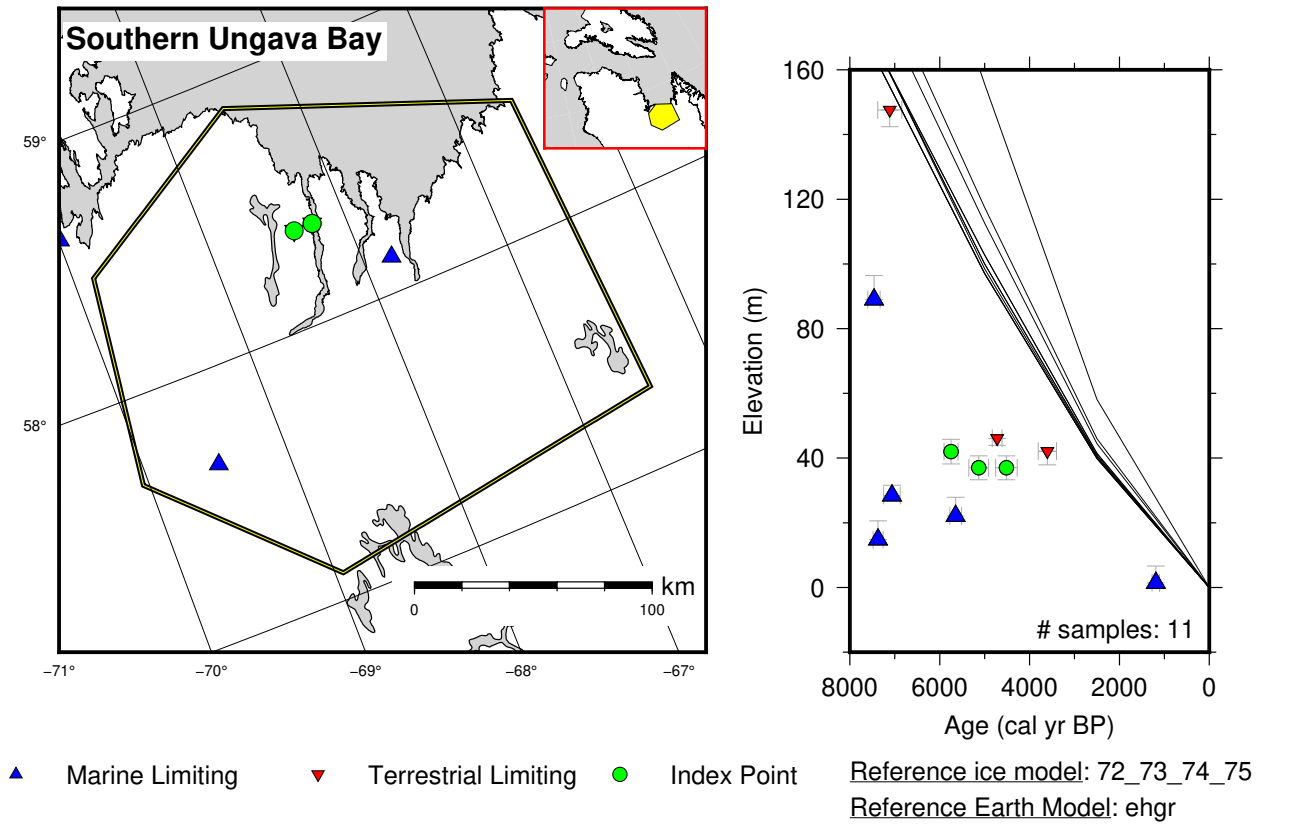


Figure 174: Paleo-sea level and comparison of six models for subregion Hudson Strait, location Southern Ungava Bay.

13.5 Labrador

References for the data used in each location.

Torngat: Dyke et al. (2003); Evans and Rogerson (1988); Lowdon and Blake (1975); Martindale et al. (2020); McNeely and Brennan (2005); Savoie and Gangloff (1980); Vacchi et al. (2018)

Nain: Clark and Fitzhugh (1990); Martindale et al. (2020)

Hamilton Inlet: Fitzhugh (1972, 1975); Lowdon and Blake (1975); Martindale et al. (2020); McNeely and Brennan (2005)

Lake Melville: Awadallah and Batterson (1990); Batterson (1996); Jordan (1975); King (1985); Liverman (1997); Lowdon and Blake (1975); Martindale et al. (2020); McNeely and Brennan (2005)

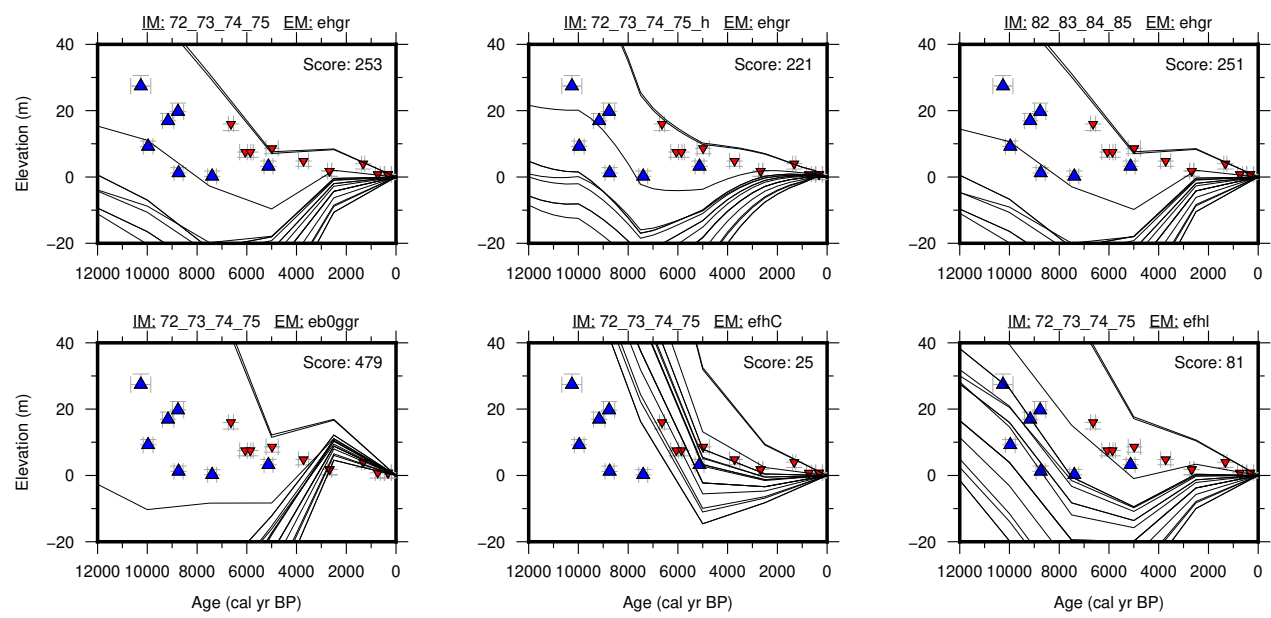
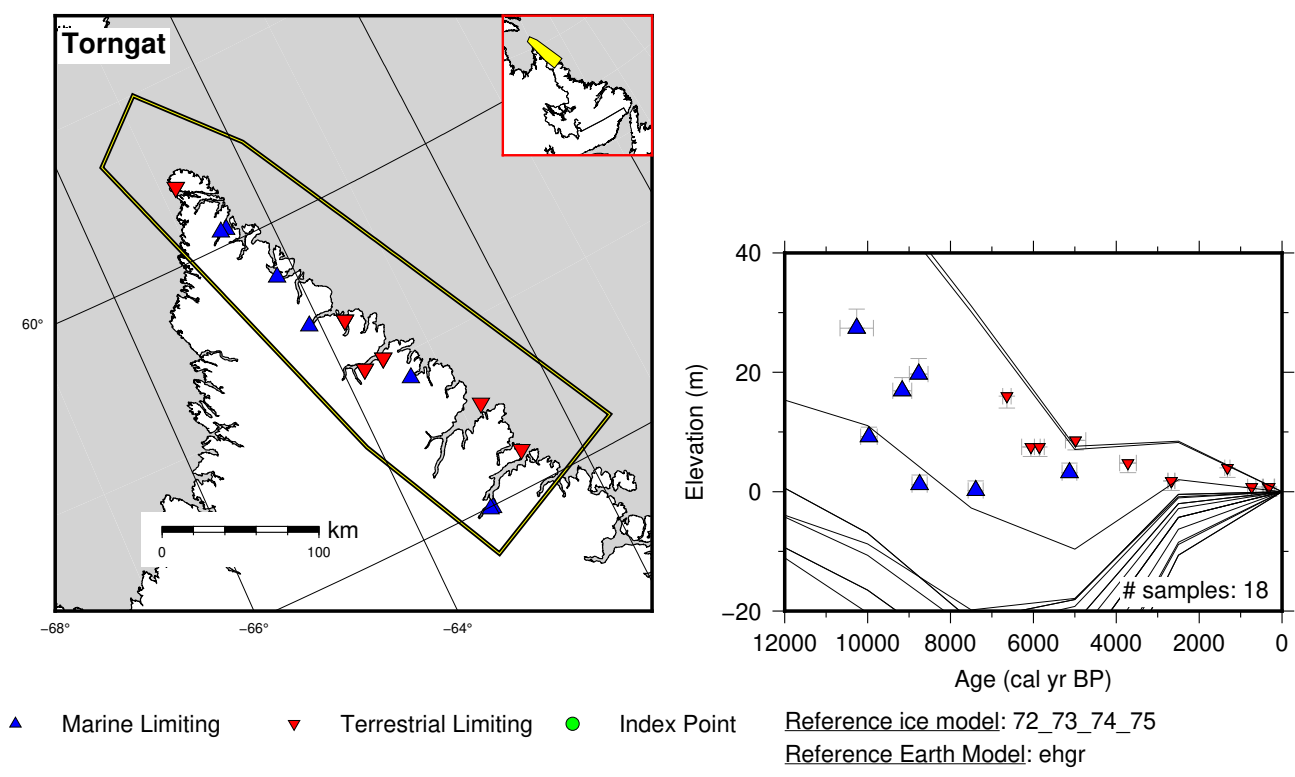


Figure 175: Paleo-sea level and comparison of six models for subregion Labrador, location Torngat.

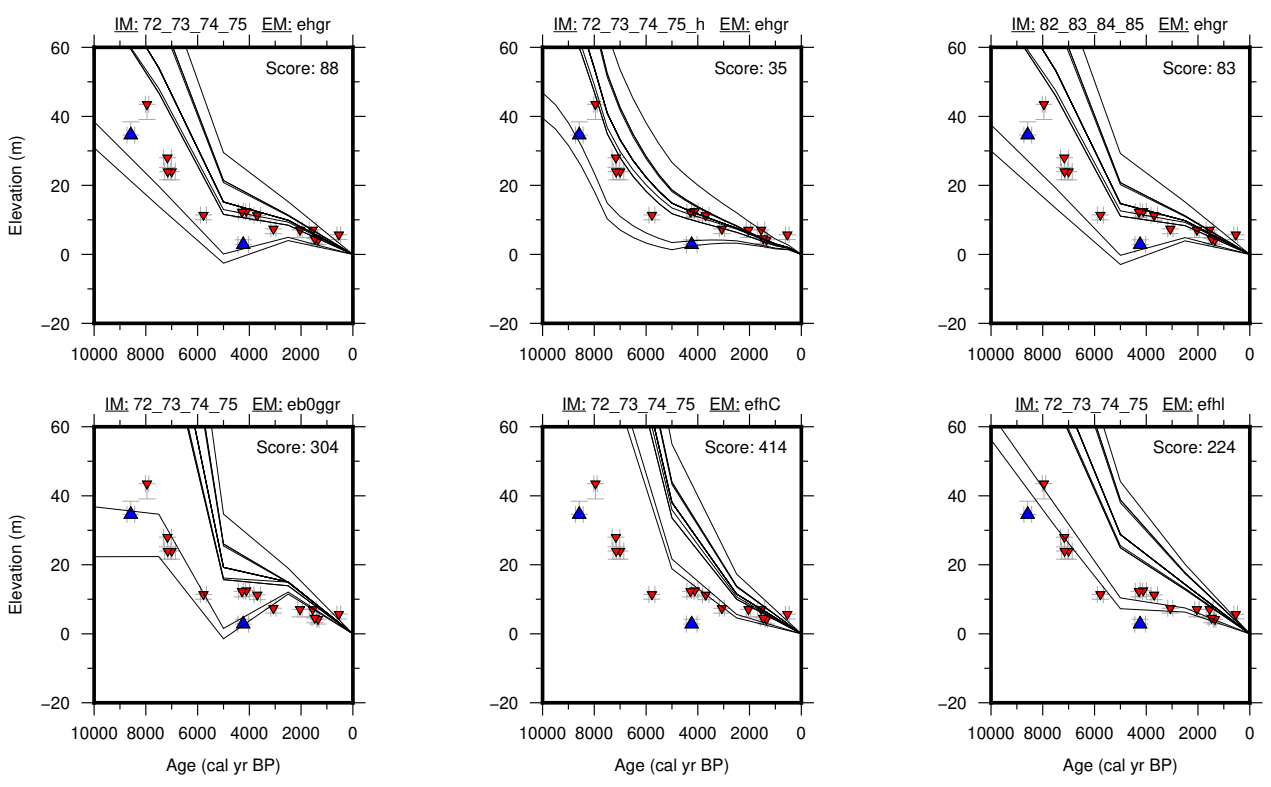
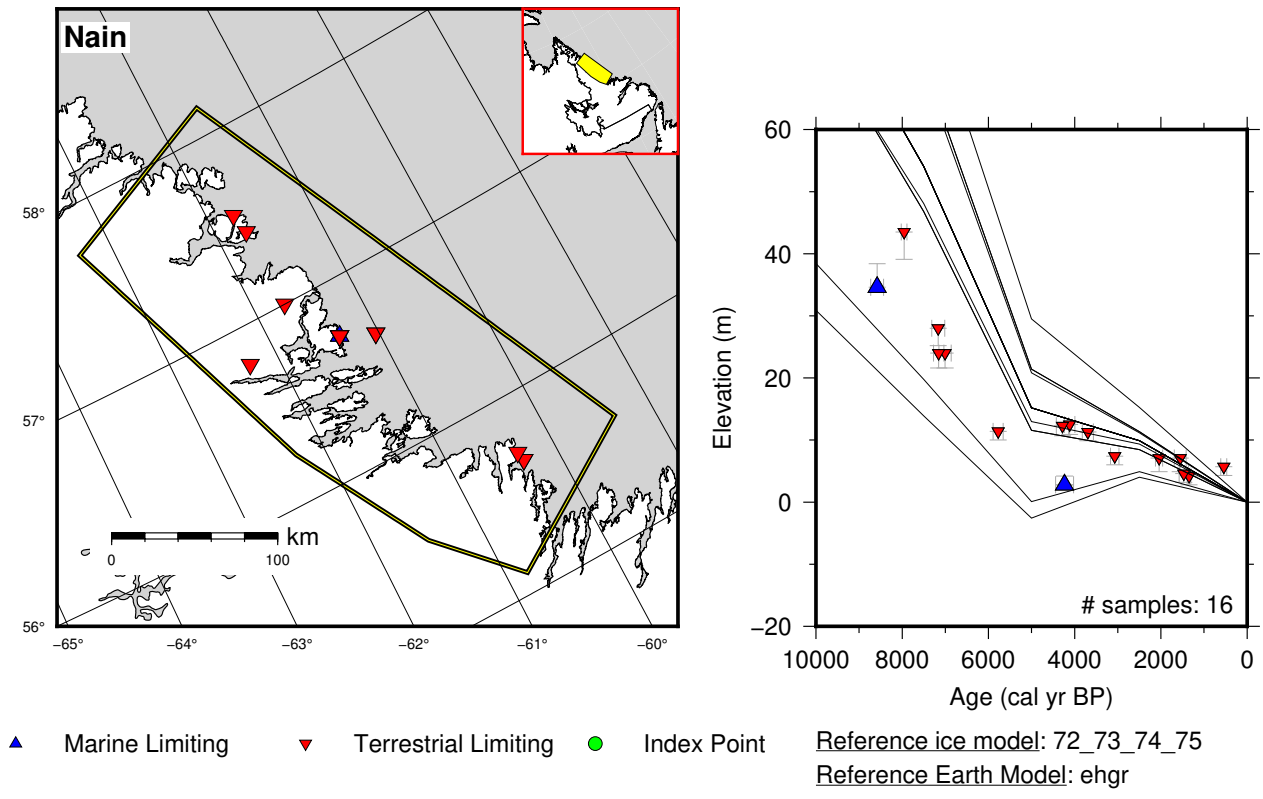


Figure 176: Paleo-sea level and comparison of six models for subregion Labrador, location Nain.

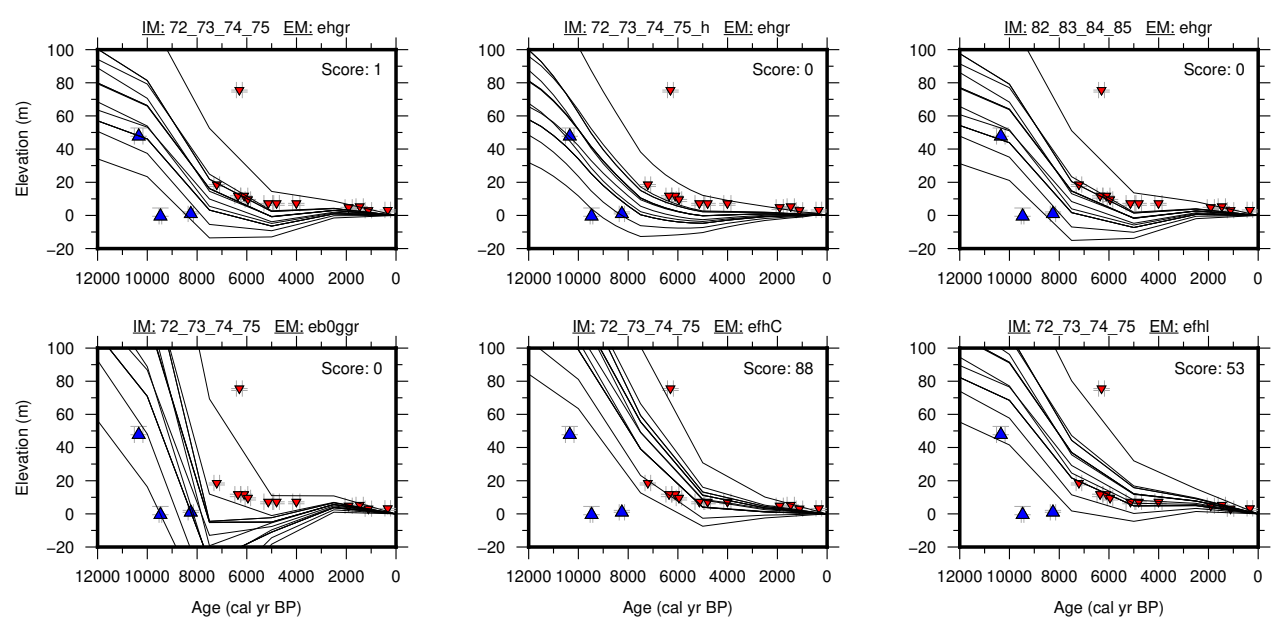
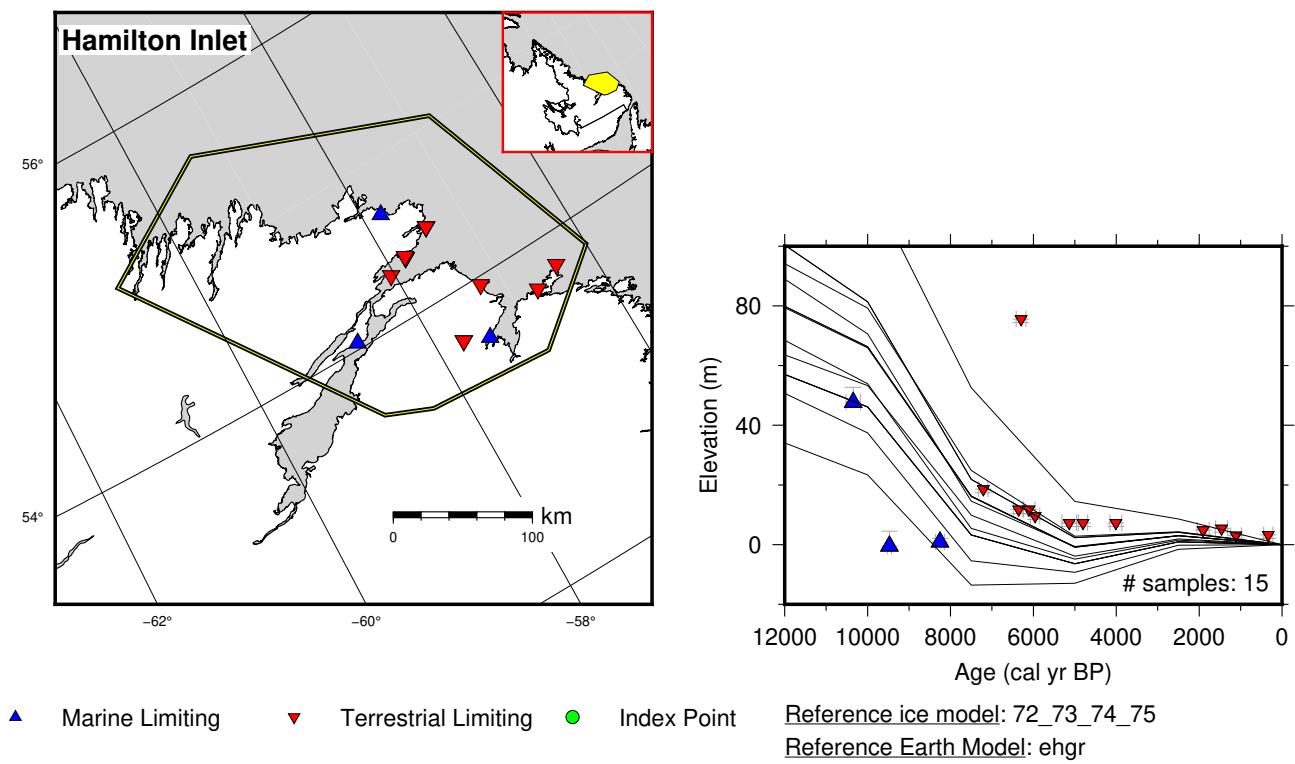


Figure 177: Paleo-sea level and comparison of six models for subregion Labrador, location Hamilton Inlet.

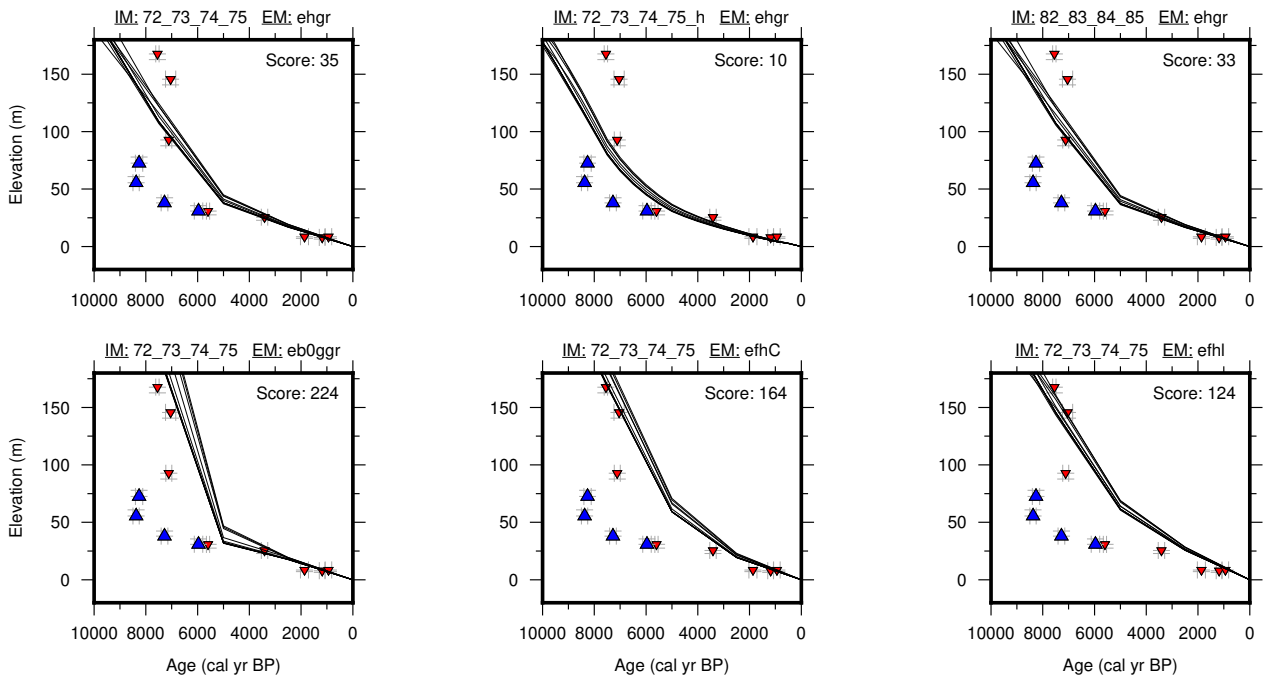
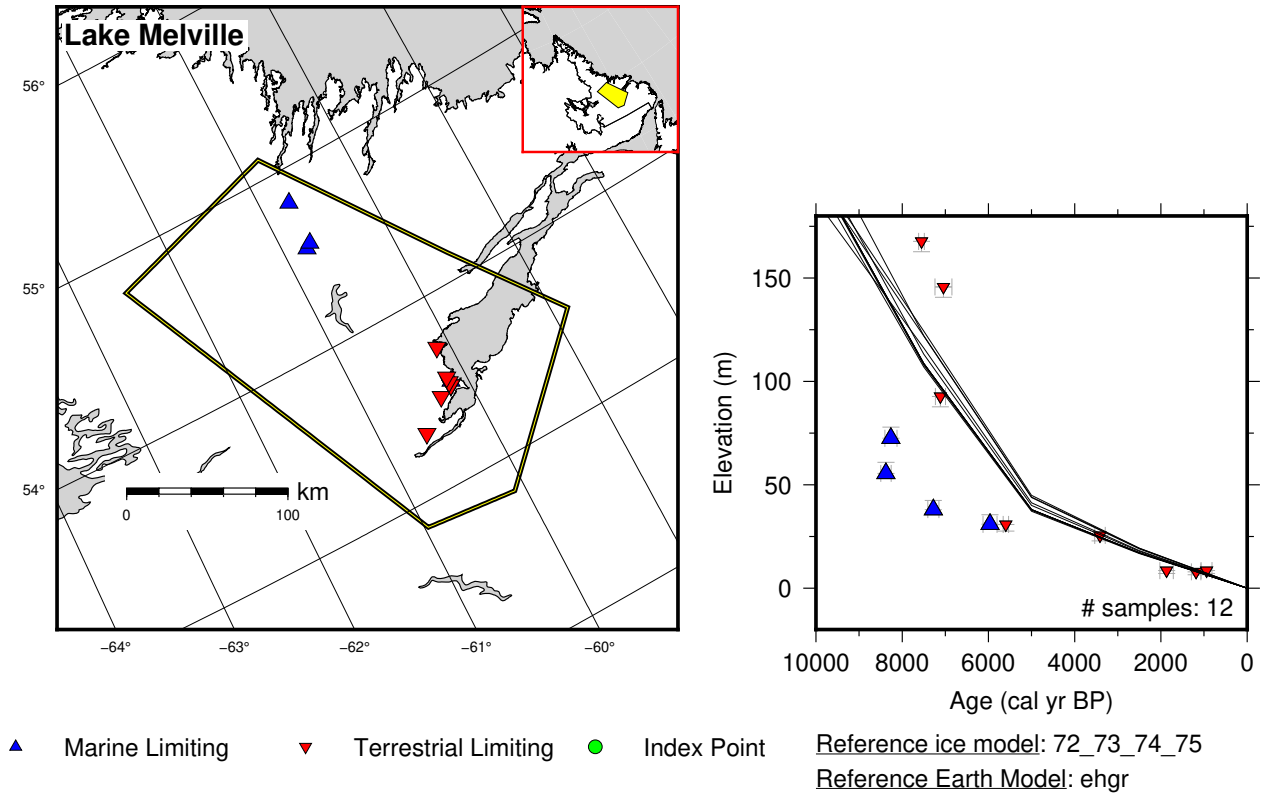


Figure 178: Paleo-sea level and comparison of six models for subregion Labrador, location Lake Melville.

13.6 Maritimes

References for the data used in each location.

Sable Island: Amos and Miller (1990); Scott et al. (1984, 1989); Vacchi et al. (2018)

Halifax: Blake (1988); Edgecombe et al. (1999); Gehrels et al. (2004, 2005); Miller et al. (1982); Scott and Medioli (1982); Scott et al. (1995); Shaw et al. (1993)

Shelburne: Blake (1983); Lowdon and Blake (1970); Scott and Greenberg (1983)

Cumberland: Dalrymple and Zaitlin (1994); Scott and Greenberg (1983); Shaw et al. (2010); Stea and Wightman (1987); Stuckenrath et al. (1966)

Passamaquoddy Bay: Blake (1984); Gehrels et al. (2004); Martindale et al. (2020); McNeely (2005); Miller (1990); Nicks (1991); Rampton et al. (1984); Seaman (2004); Stea and Mott (1998)

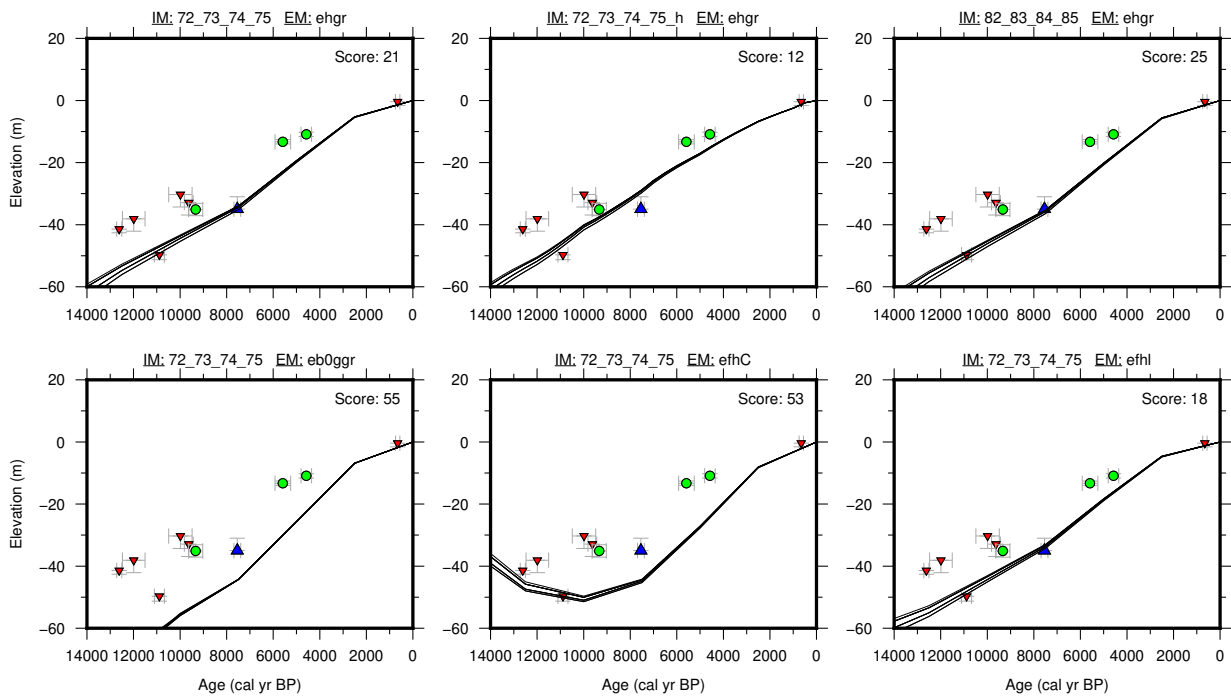
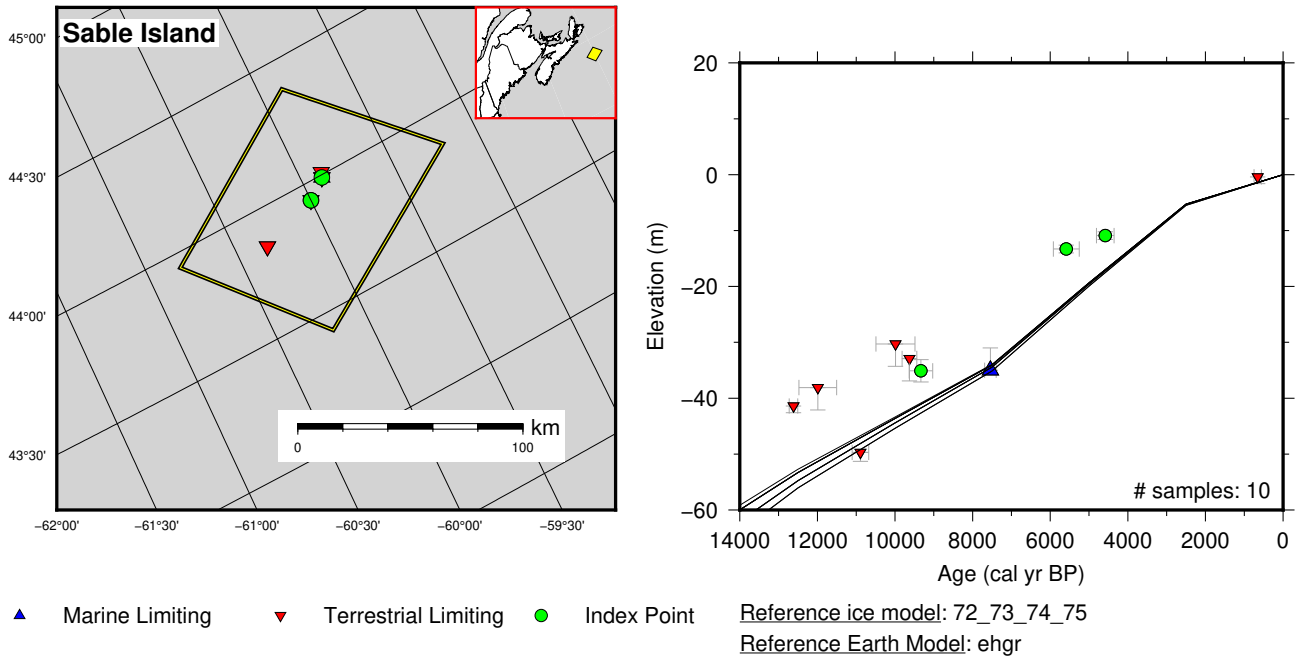


Figure 179: Paleo-sea level and comparison of six models for subregion Maritimes, location Sable Island.

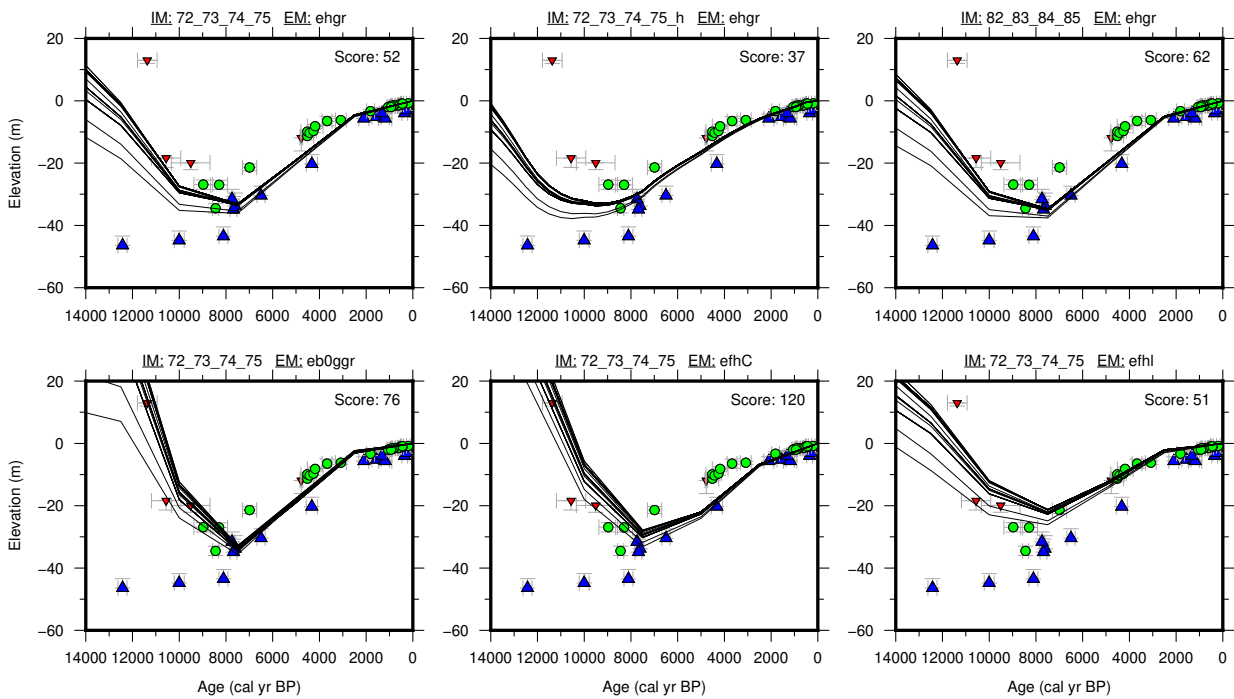
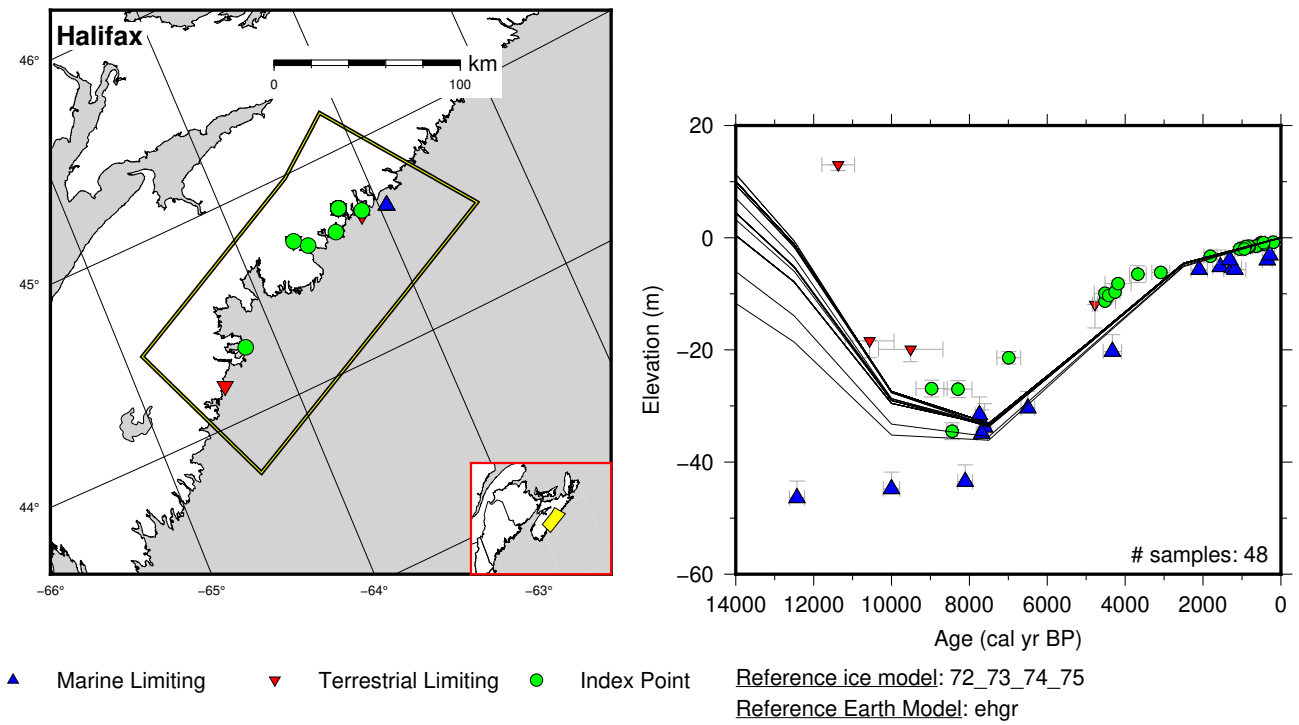
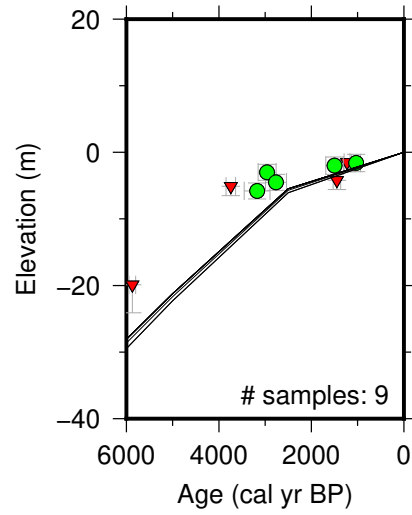
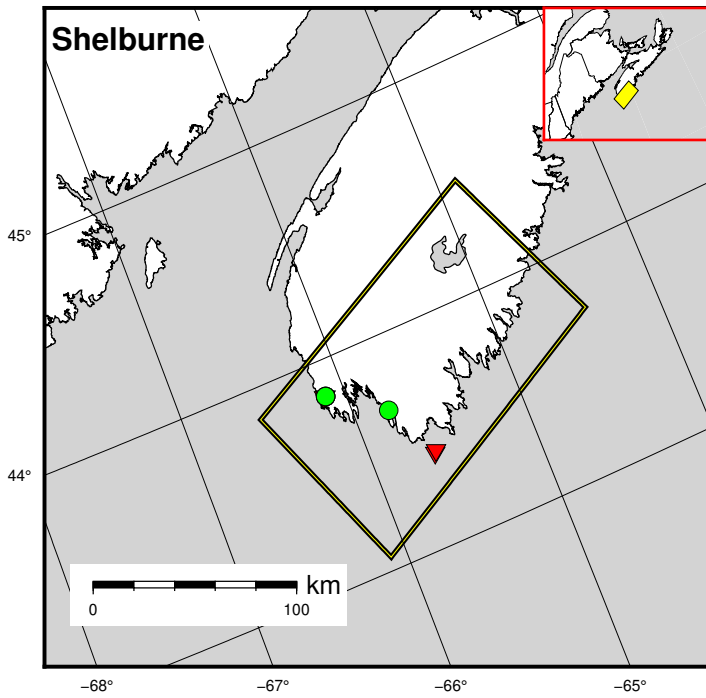


Figure 180: Paleo-sea level and comparison of six models for subregion Maritimes, location Halifax.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point

Reference ice model: 72_73_74_75
Reference Earth Model: ehgr

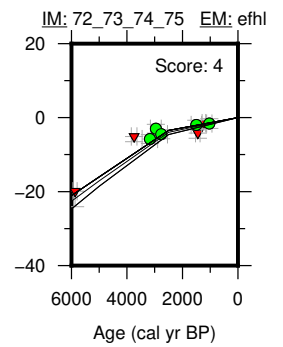
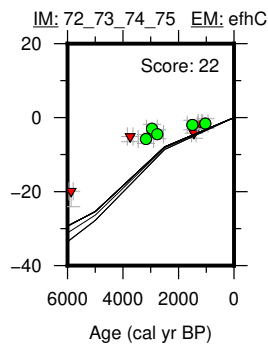
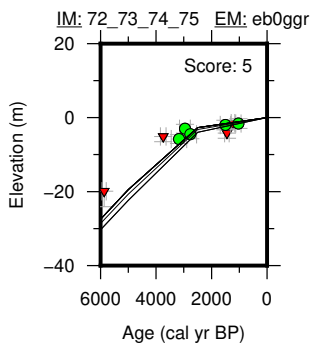
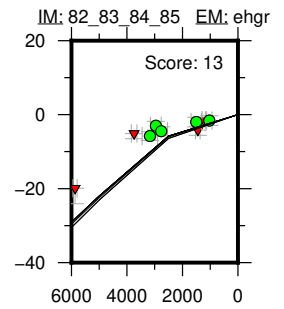
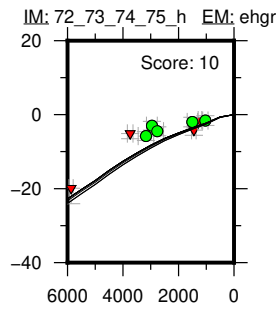
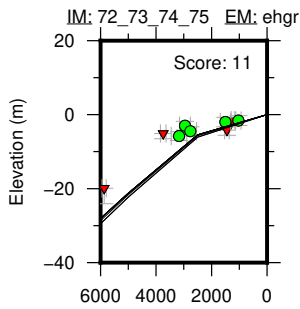
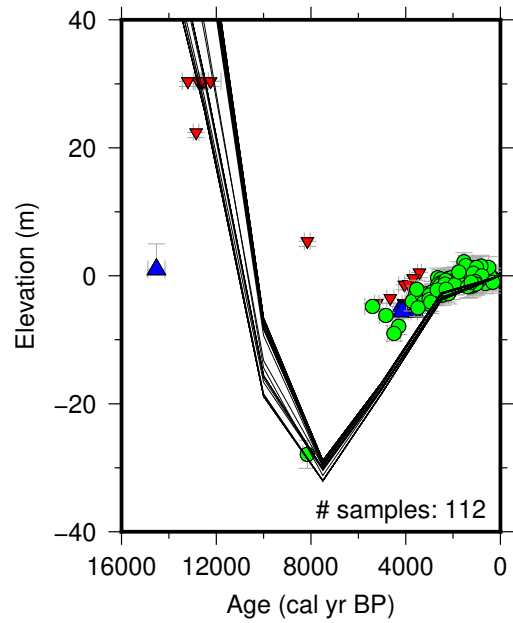
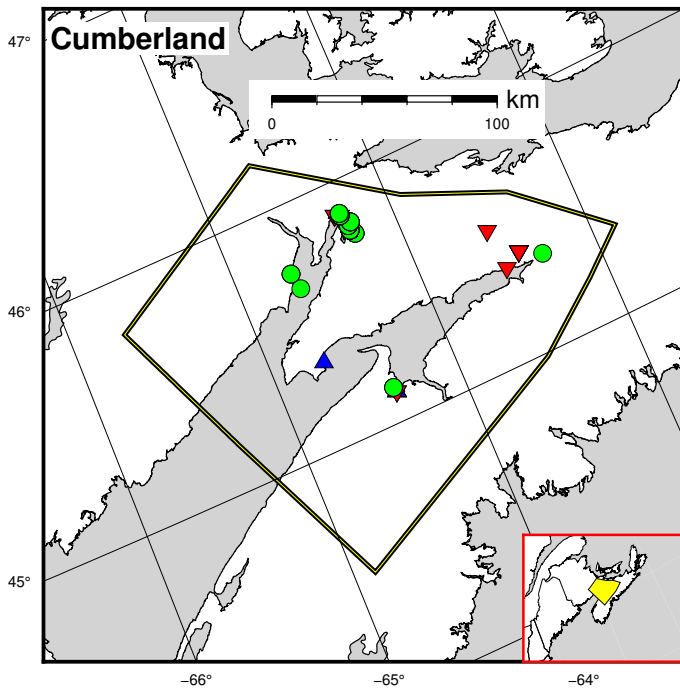


Figure 181: Paleo-sea level and comparison of six models for subregion Maritimes, location Shelburne.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point

Reference ice model: 72_73_74_75
Reference Earth Model: ehgr

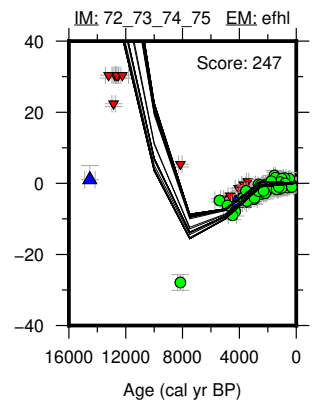
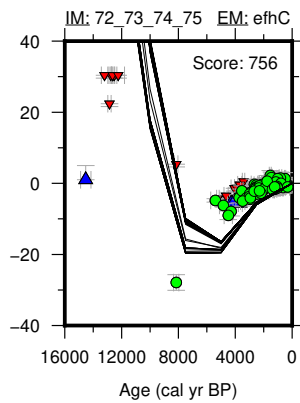
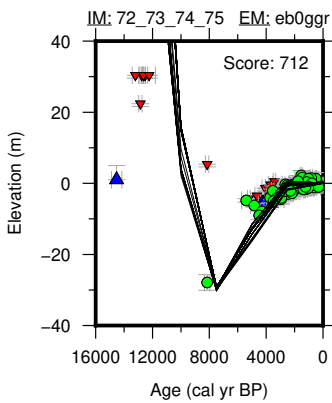
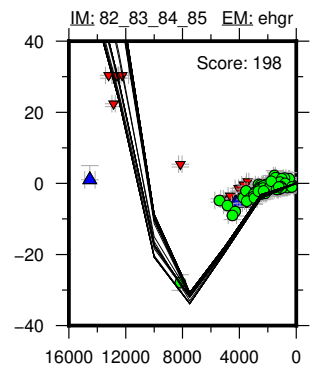
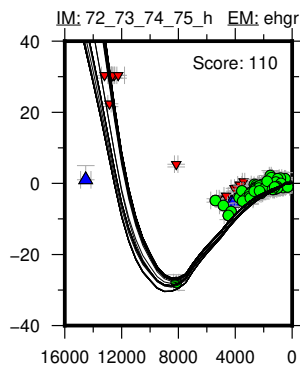
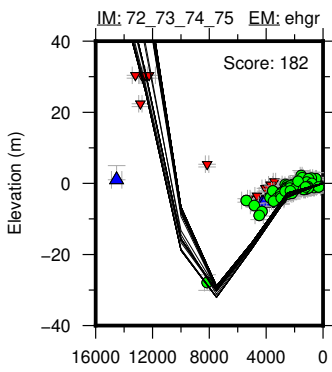
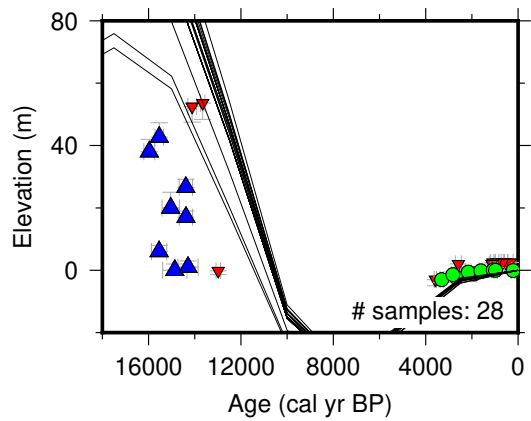
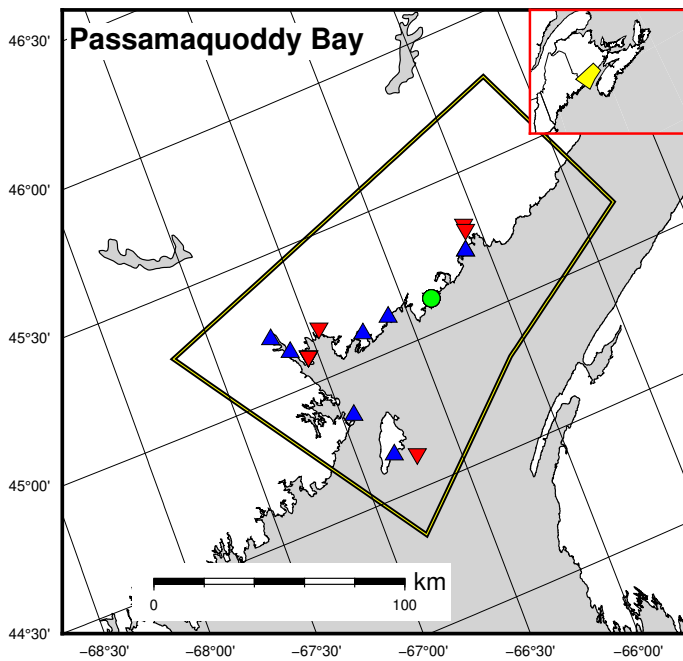


Figure 182: Paleo-sea level and comparison of six models for subregion Maritimes, location Cumberland.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point

Reference ice model: 72_73_74_75
Reference Earth Model: ehgr

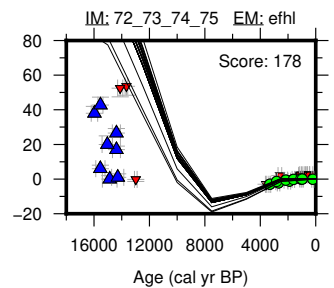
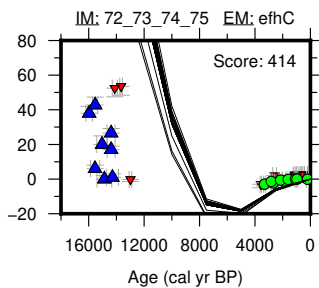
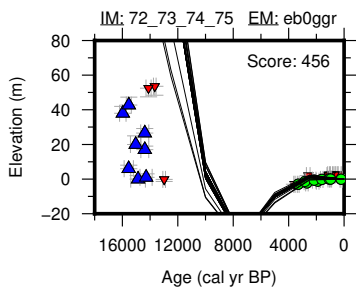
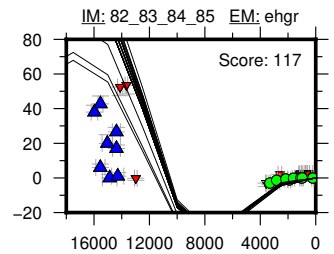
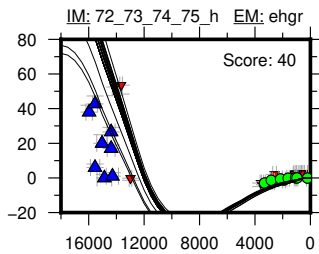
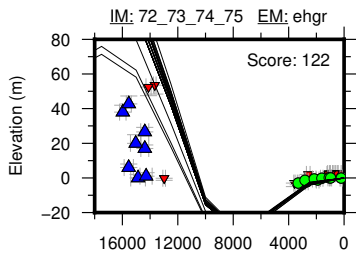


Figure 183: Paleo-sea level and comparison of six models for subregion Maritimes, location Passamaquoddy Bay.

13.7 Newfoundland

References for the data used in each location.

Great Northern Peninsula: Bell et al. (2005); Grant (1992, 1994); Martindale et al. (2020); McNeely and Jorgensen (1993); McNeely and McCuaig (1991); Nydal (1989); Tuck (1971)

Notre Dame Bay: Blake (1983); Daly et al. (2007); Dyck and Fyles (1963); McNeely and Brennan (2005); McNeely and McCuaig (1991); Scott et al. (1991); Shaw and Edwardson (1994)

Avalon Peninsula: Catto et al. (1997); Daly et al. (2007); MacPherson (1996); McNeely (2006); Shaw and Forbes (1995)

Bay Of Islands: Brookes et al. (1985); Brookes and Stevens (1985); Daly et al. (2007); Grant (1994); McNeely and Brennan (2005); McNeely and McCuaig (1991)

Port Aux Basques: Bell et al. (2003); Blake (1988); Brookes et al. (1985); Daly et al. (2007); Dyke et al. (2003); Forbes et al. (1993); Kemp et al. (2017); Lowdon and Blake (1980); Lowdon et al. (1971); McNeely (2002); McNeely and Atkinson (1995); McNeely and Brennan (2005); McNeely and Jorgensen (1992, 1993); McNeely and McCuaig (1991); Shaw and Forbes (1987, 1995); Shaw and Potter (2015)

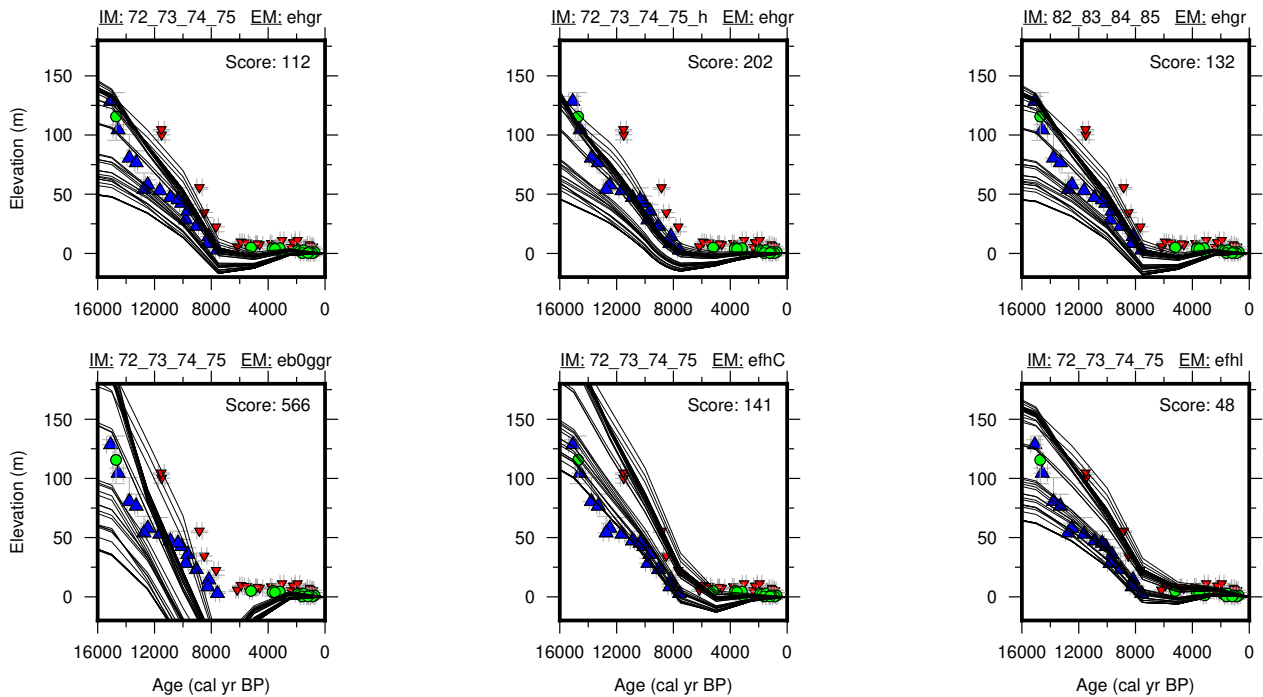
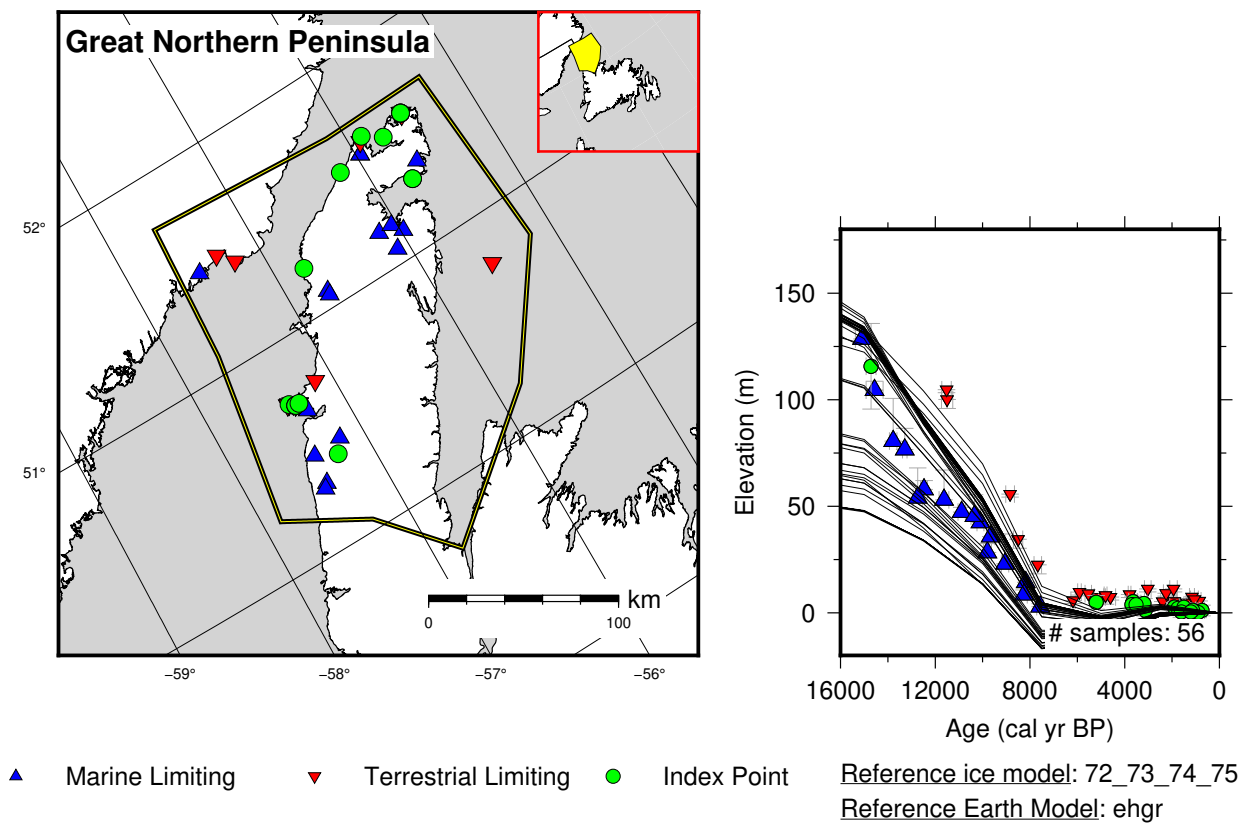


Figure 184: Paleo-sea level and comparison of six models for subregion Newfoundland, location Great Northern Peninsula.

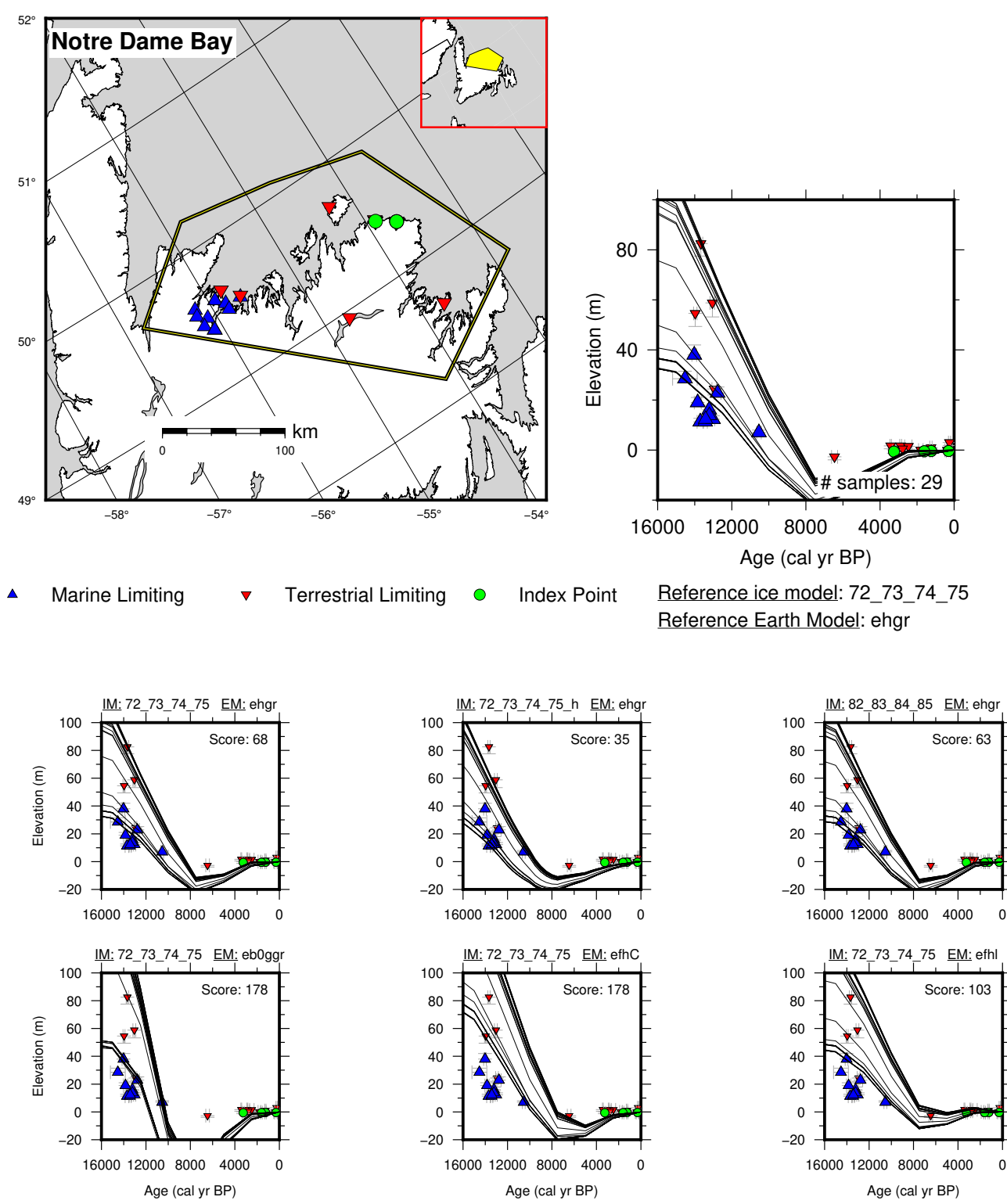
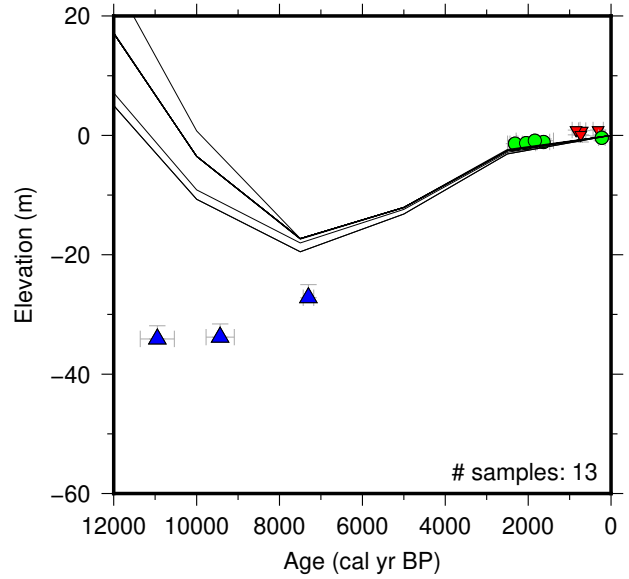
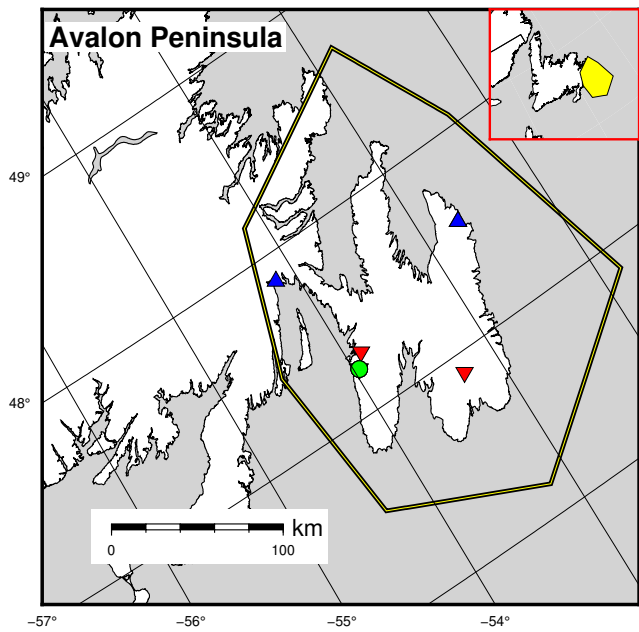


Figure 185: Paleo-sea level and comparison of six models for subregion Newfoundland, location Notre Dame Bay.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point Reference ice model: 72_73_74_75
 Reference Earth Model: ehgr

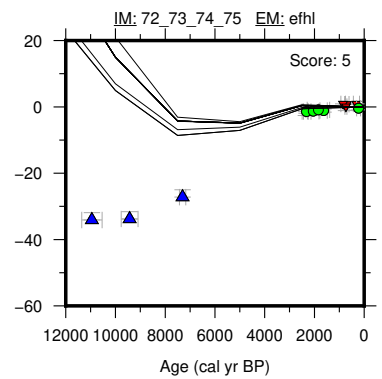
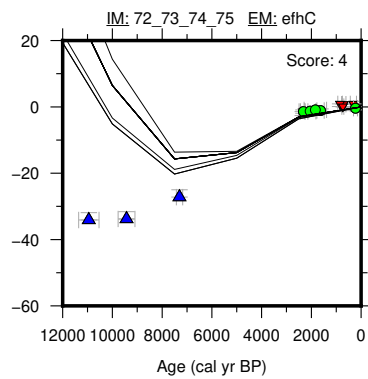
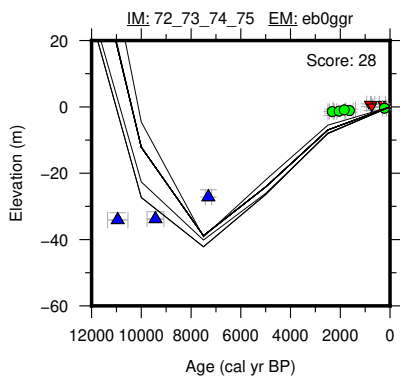
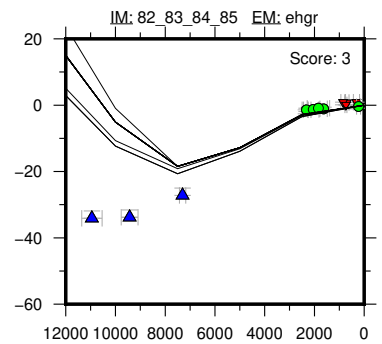
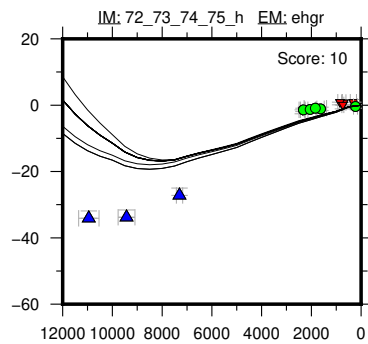
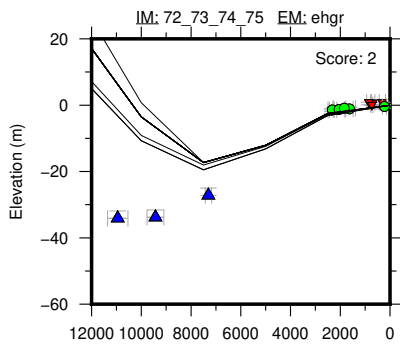
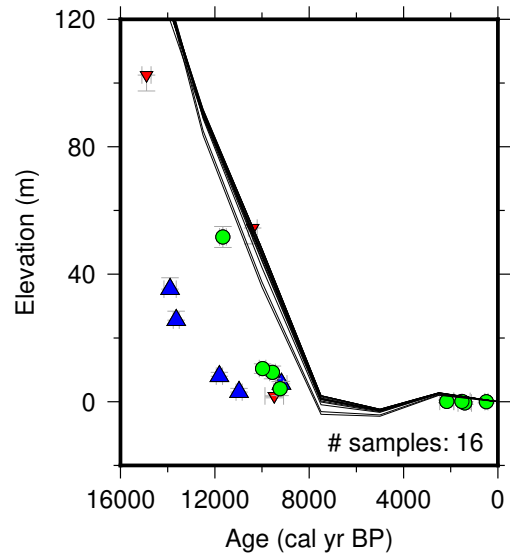
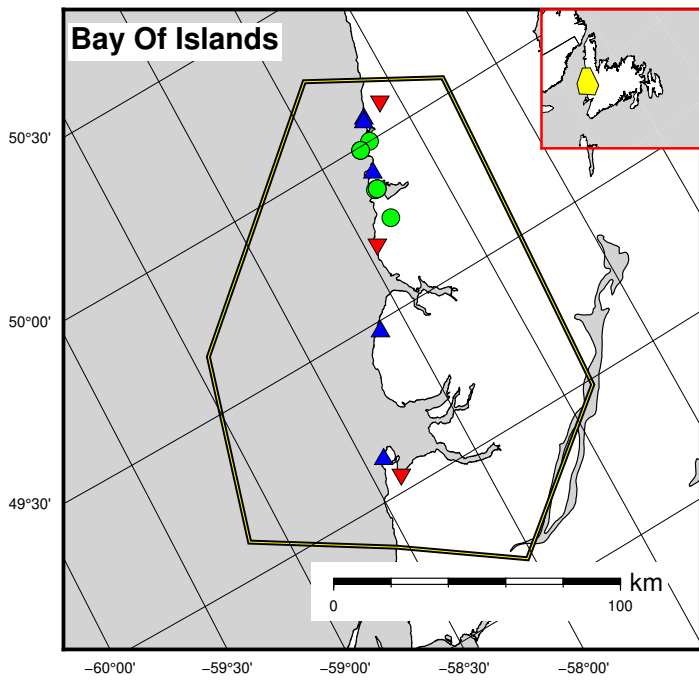


Figure 186: Paleo-sea level and comparison of six models for subregion Newfoundland, location Avalon Peninsula.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point

Reference ice model: 72_73_74_75
Reference Earth Model: ehgr

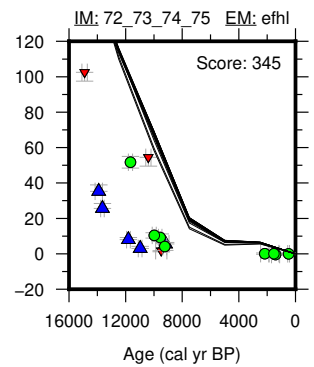
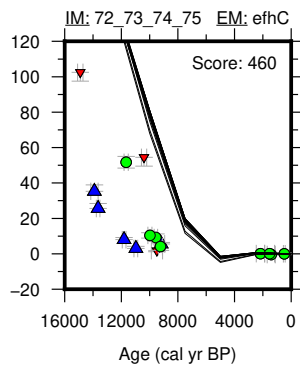
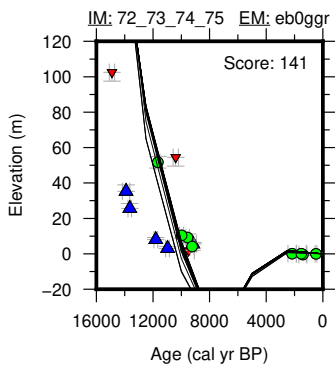
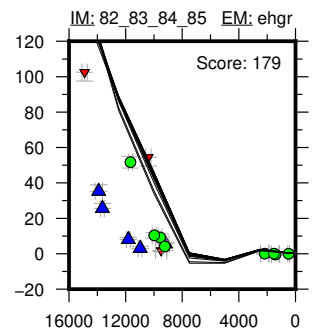
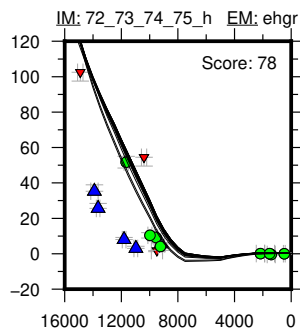
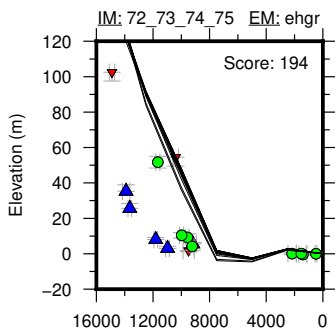


Figure 187: Paleo-sea level and comparison of six models for subregion Newfoundland, location Bay Of Islands.

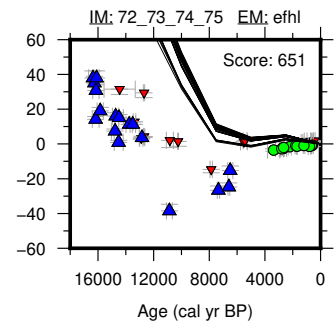
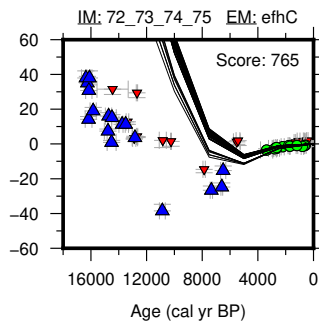
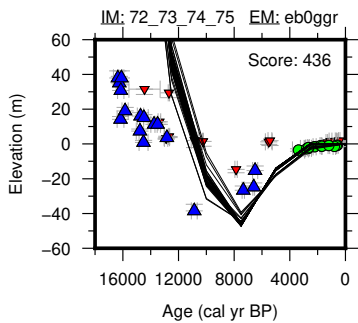
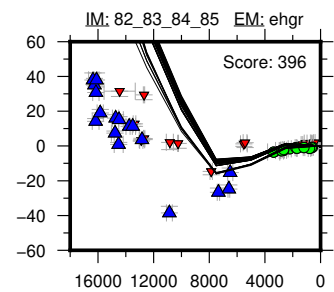
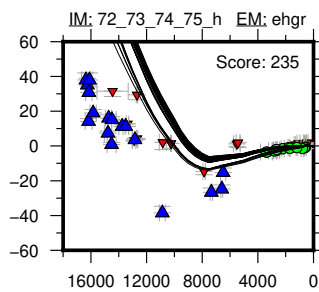
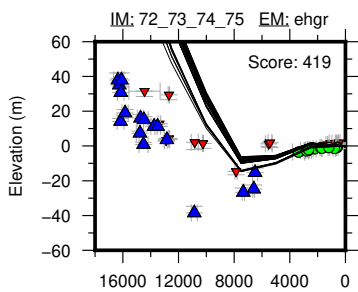
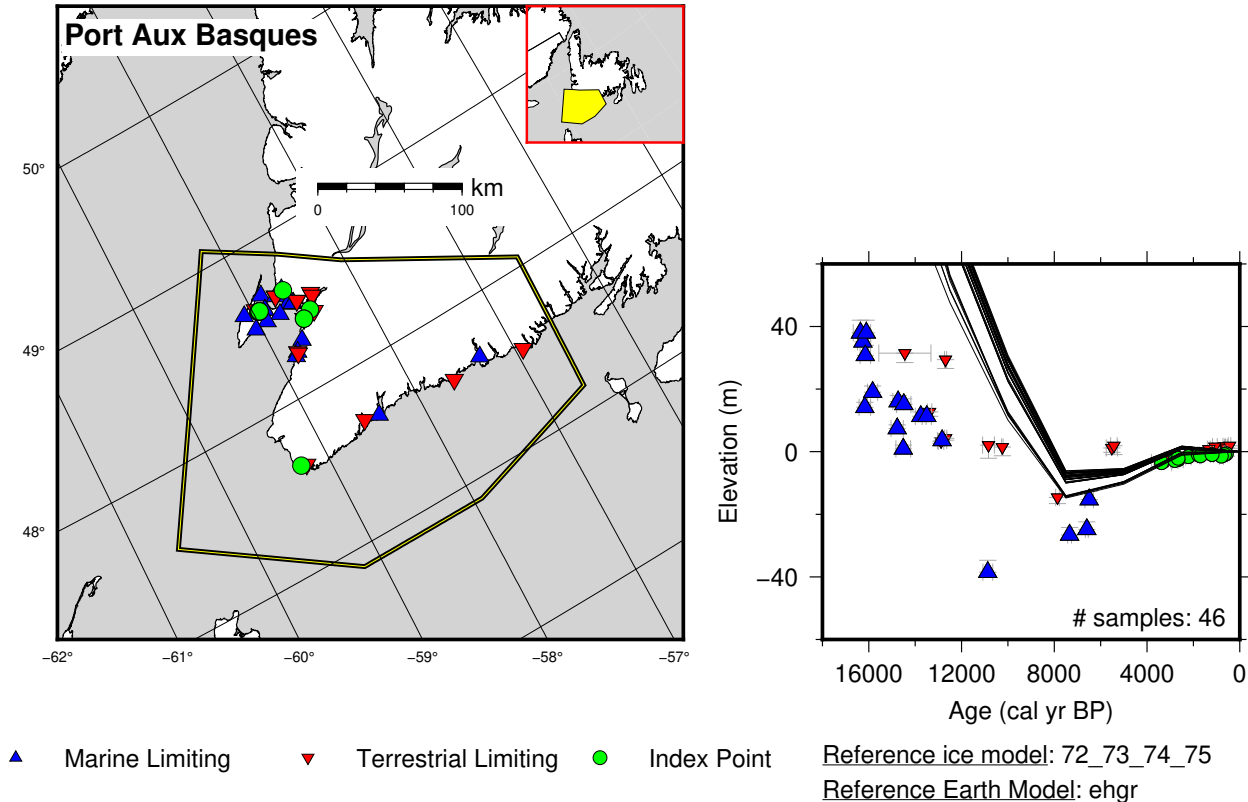


Figure 188: Paleo-sea level and comparison of six models for subregion Newfoundland, location Port Aux Basques.

13.8 Northeastern United States

References for the data used in each location.

Eastern Maine: Belknap et al. (1989); Gehrels (1999); Gehrels and Belknap (1993); Gehrels et al. (1996)

Southern Maine: Barnhardt et al. (1995); Belknap et al. (1989); Bloom (1963); Gehrels et al. (1996, 2002); Kelley et al. (1992, 1995)

Northern Massachusetts: Donnelly (2006); Kaye and Barghoorn (1964); Kirwan et al. (2011); Newman et al. (1980); Oldale et al. (1993); Redfield (1967); Redfield and Rubin (1962)

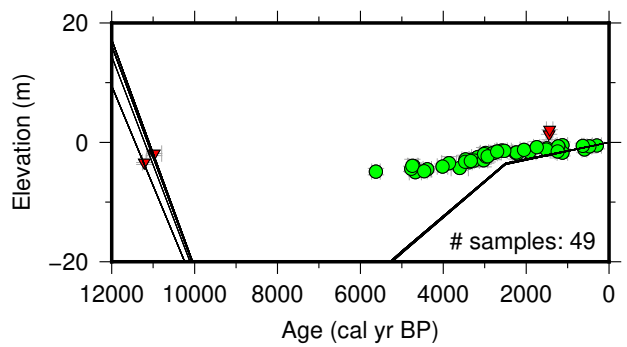
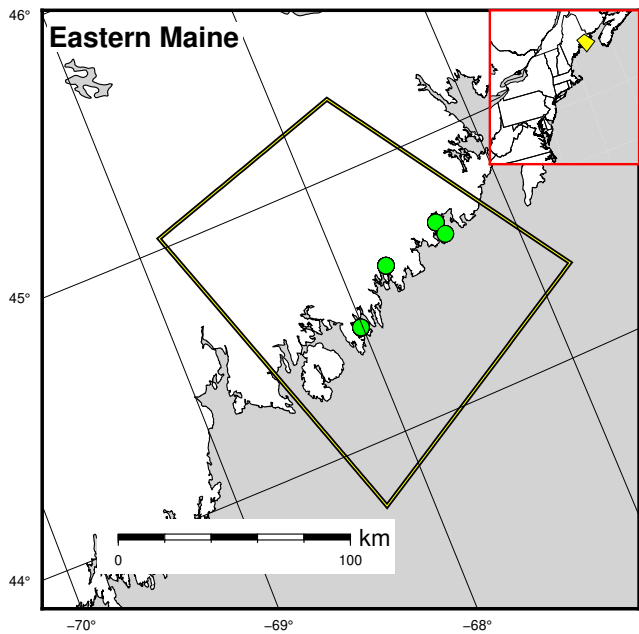
Southern Massachusetts: Emery et al. (1967); Field et al. (1979); Gutierrez et al. (2003); Oldale and O'Hara (1980); Redfield (1967); Redfield and Rubin (1962); Stuiver et al. (1963)

Connecticut: Bloom (1963); Cinquemani et al. (1982); Donnelly et al. (2004); Nydick et al. (1995); Redfield and Rubin (1962); van de Plassche (1991); van de Plassche et al. (1989, 1998, 2002)

Long Island: Bloom (1963); Cinquemani et al. (1982); Field et al. (1979); Pardi and Newman (1980); Pardi et al. (1984); Redfield (1967); Redfield and Rubin (1962)

New York: Olson and Broecker (1961); Pardi et al. (1984); Slagle et al. (2006)

New Jersey: Cinquemani et al. (1982); Donnelly et al. (2001); Engelhart and Horton (2012); Field et al. (1979); Miller et al. (2009); Pardi et al. (1984); Psuty (1986); Stuiver and Daddario (1963)



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point Reference ice model: 72_73_74_75
 Reference Earth Model: ehgr

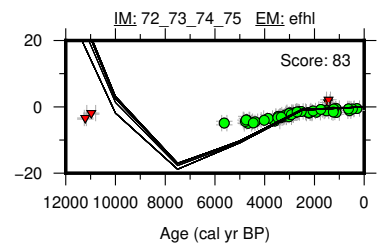
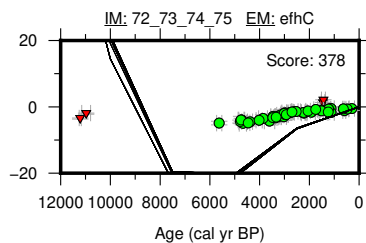
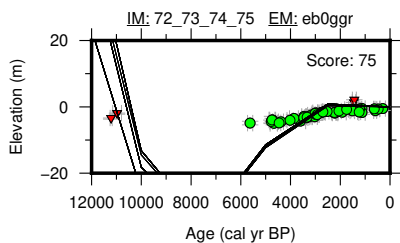
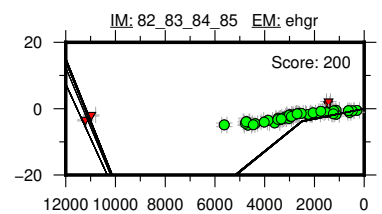
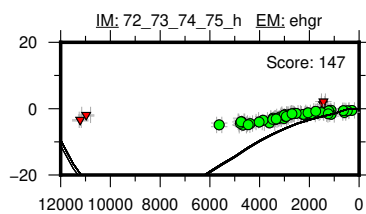
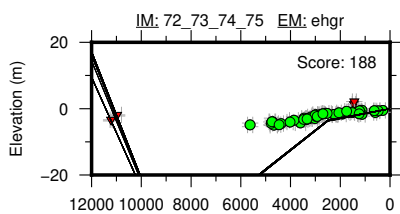


Figure 189: Paleo-sea level and comparison of six models for subregion Northeastern United States, location Eastern Maine.

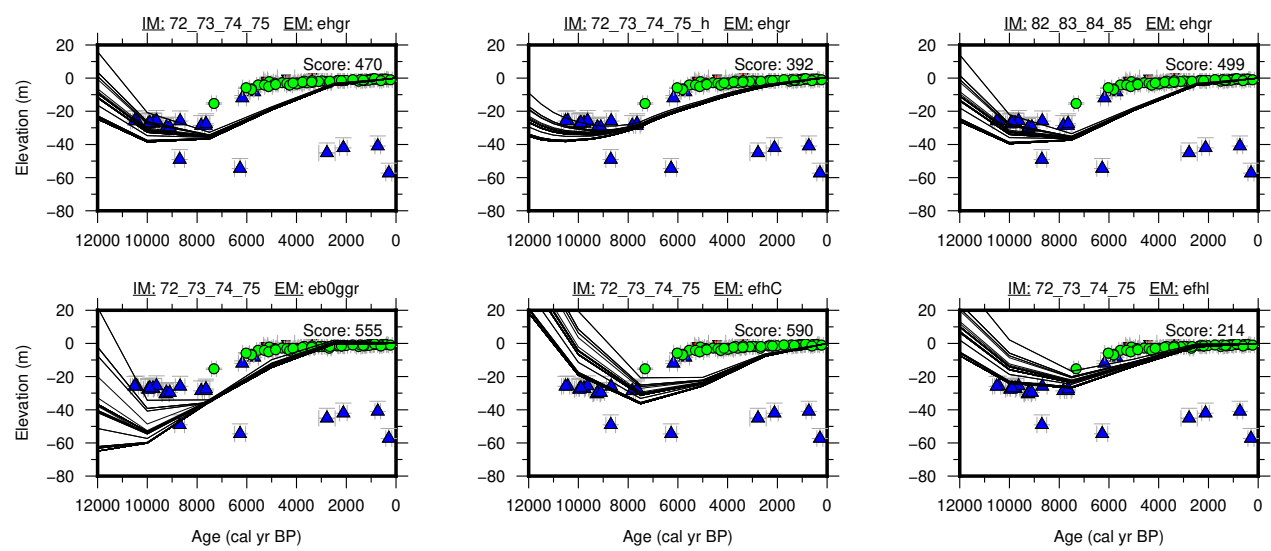
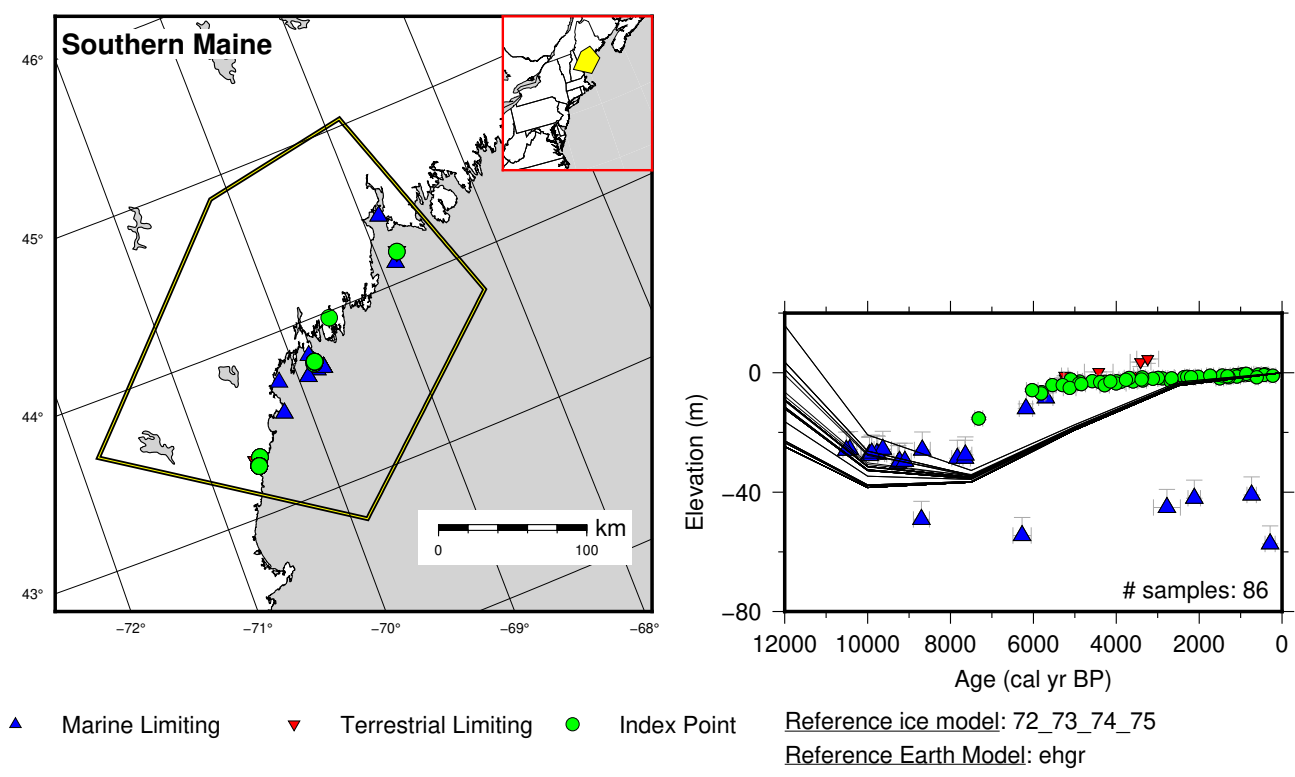
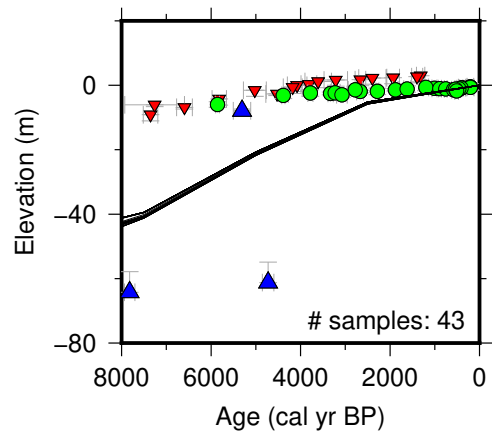
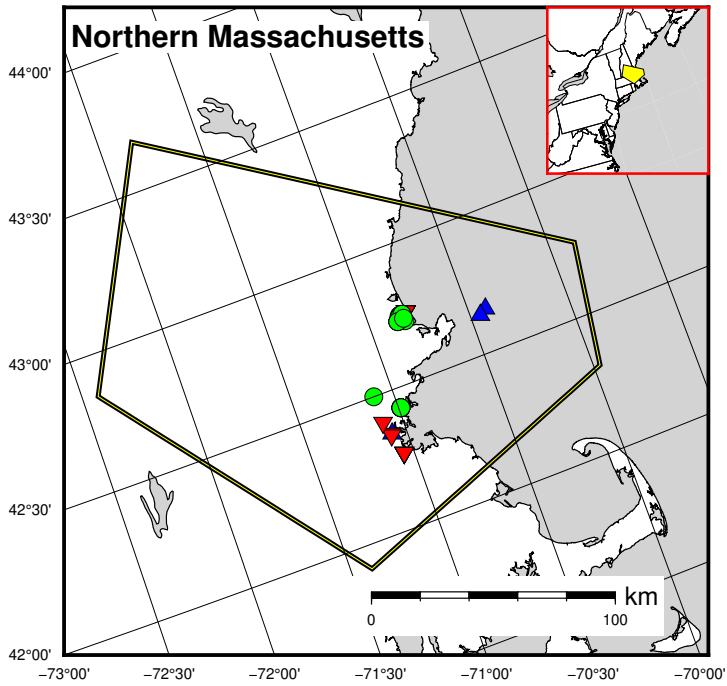


Figure 190: Paleo-sea level and comparison of six models for subregion Northeastern United States, location Southern Maine.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point

Reference ice model: 72_73_74_75
Reference Earth Model: ehgr

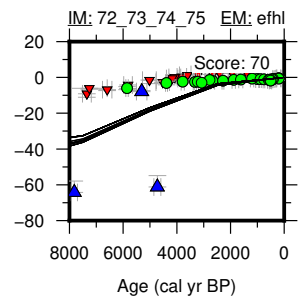
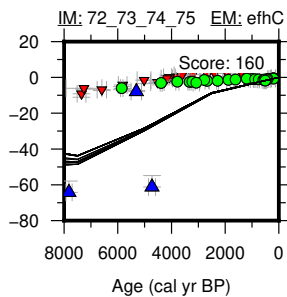
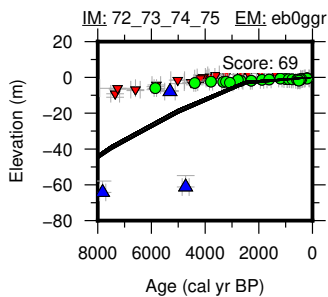
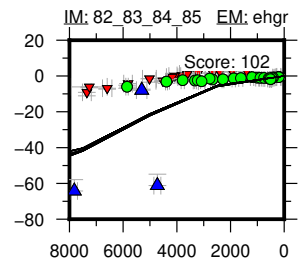
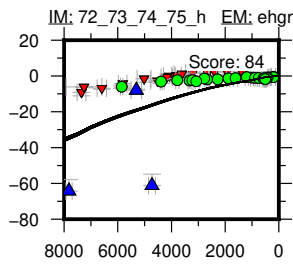
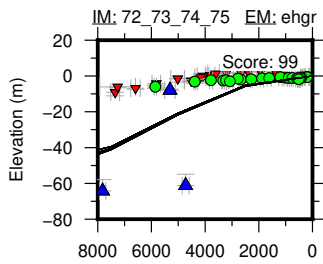


Figure 191: Paleo-sea level and comparison of six models for subregion Northeastern United States, location Northern Massachusetts.

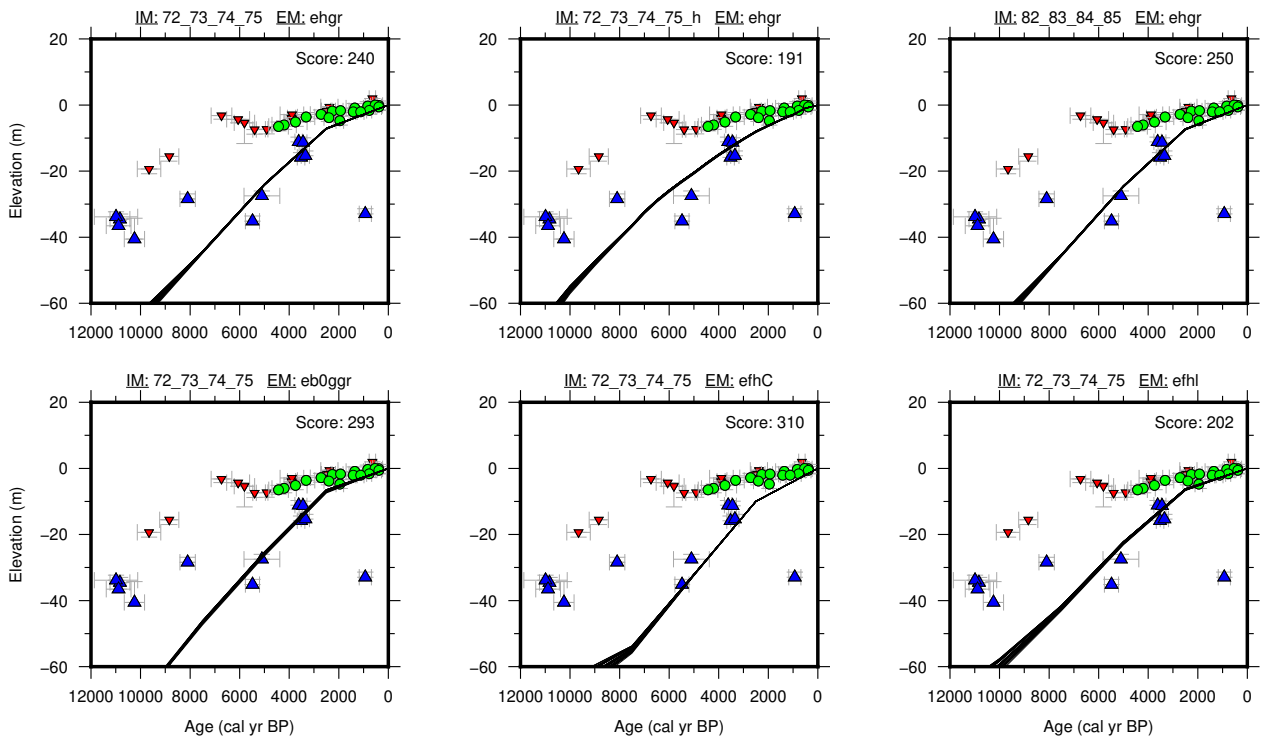
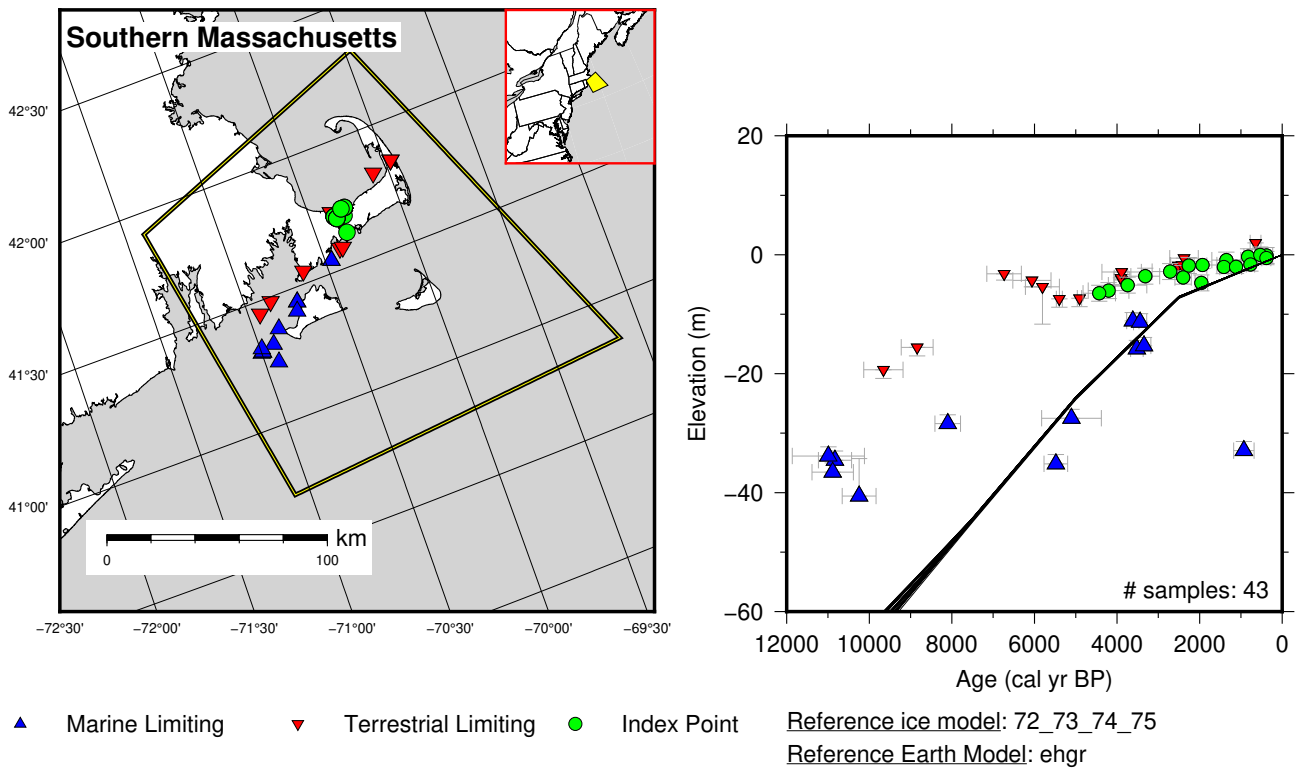


Figure 192: Paleo-sea level and comparison of six models for subregion Northeastern United States, location Southern Massachusetts.

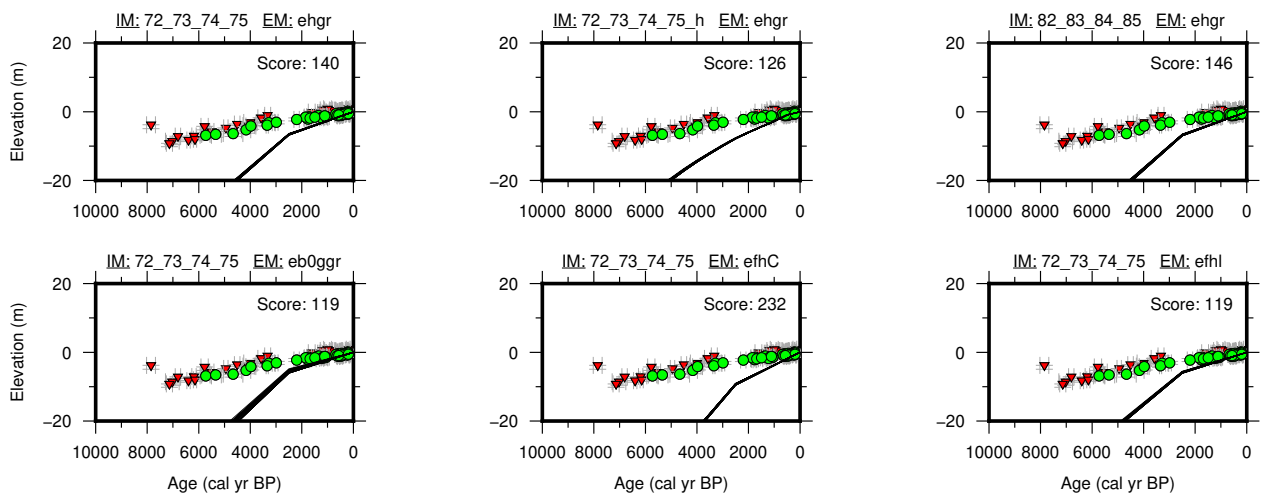
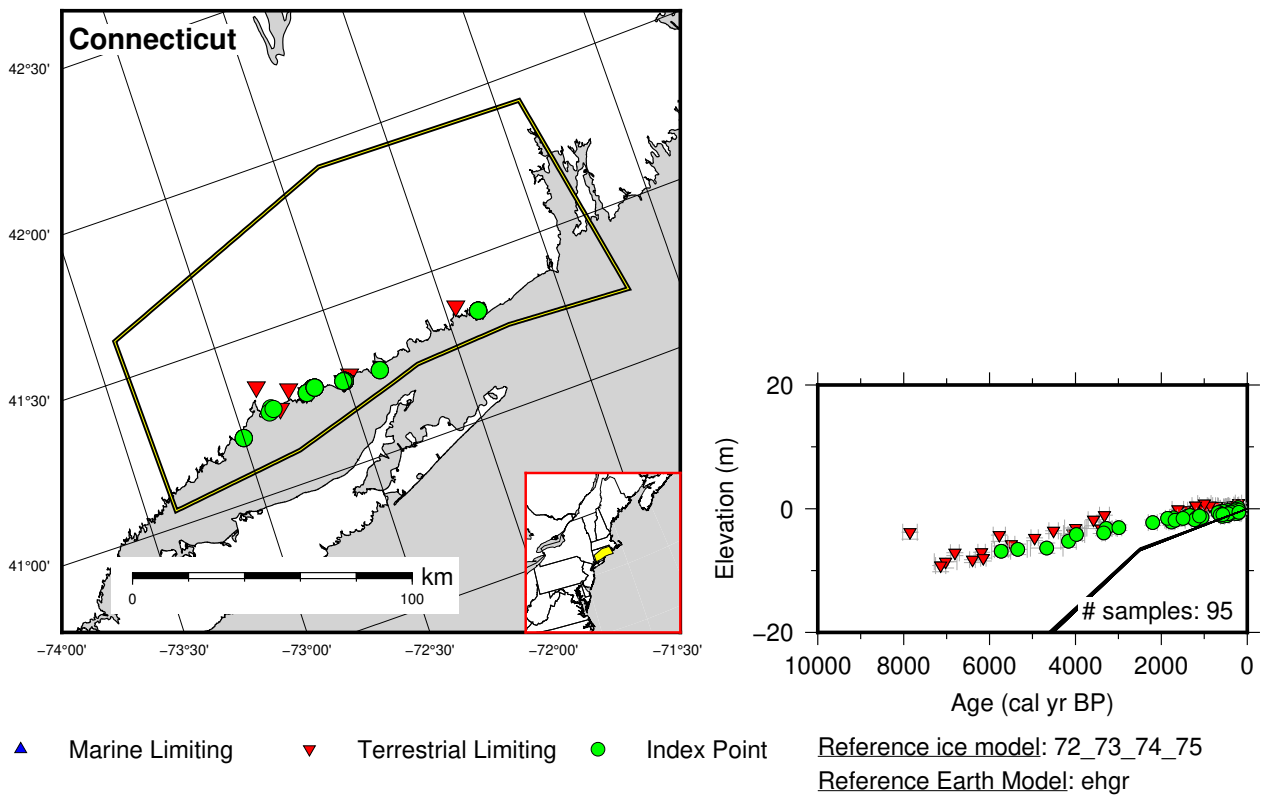


Figure 193: Paleo-sea level and comparison of six models for subregion Northeastern United States, location Connecticut.

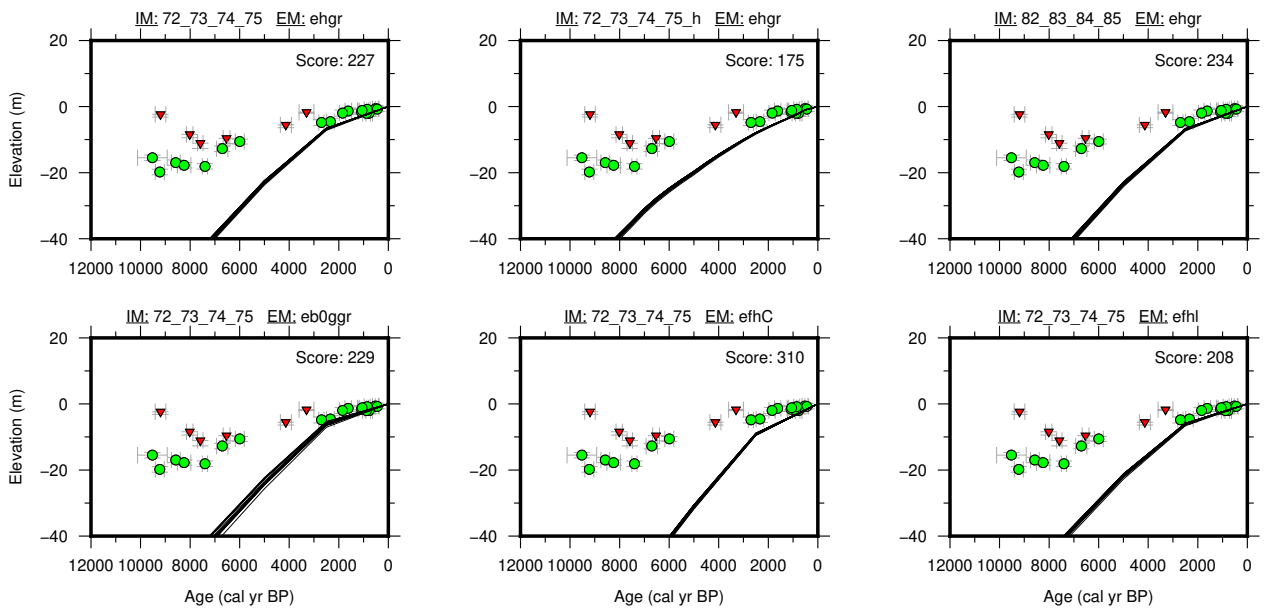
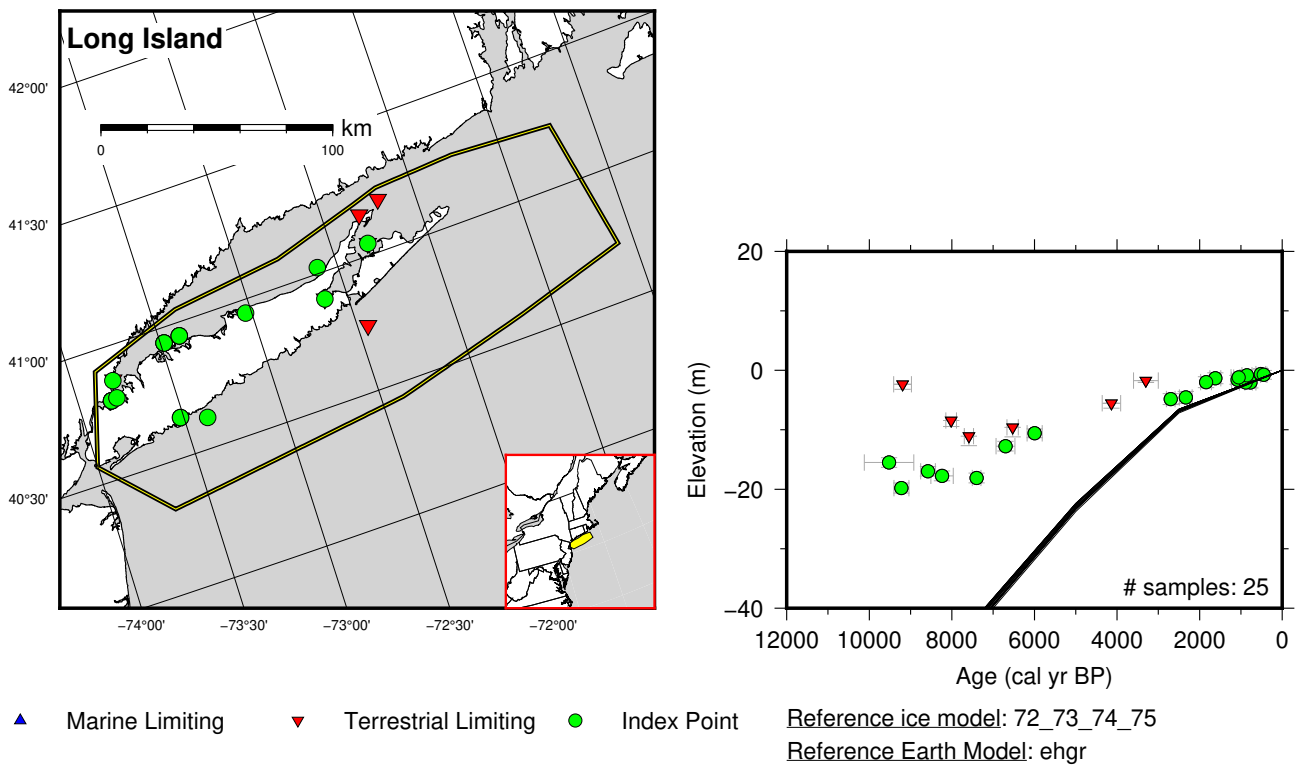


Figure 194: Paleo-sea level and comparison of six models for subregion Northeastern United States, location Long Island.

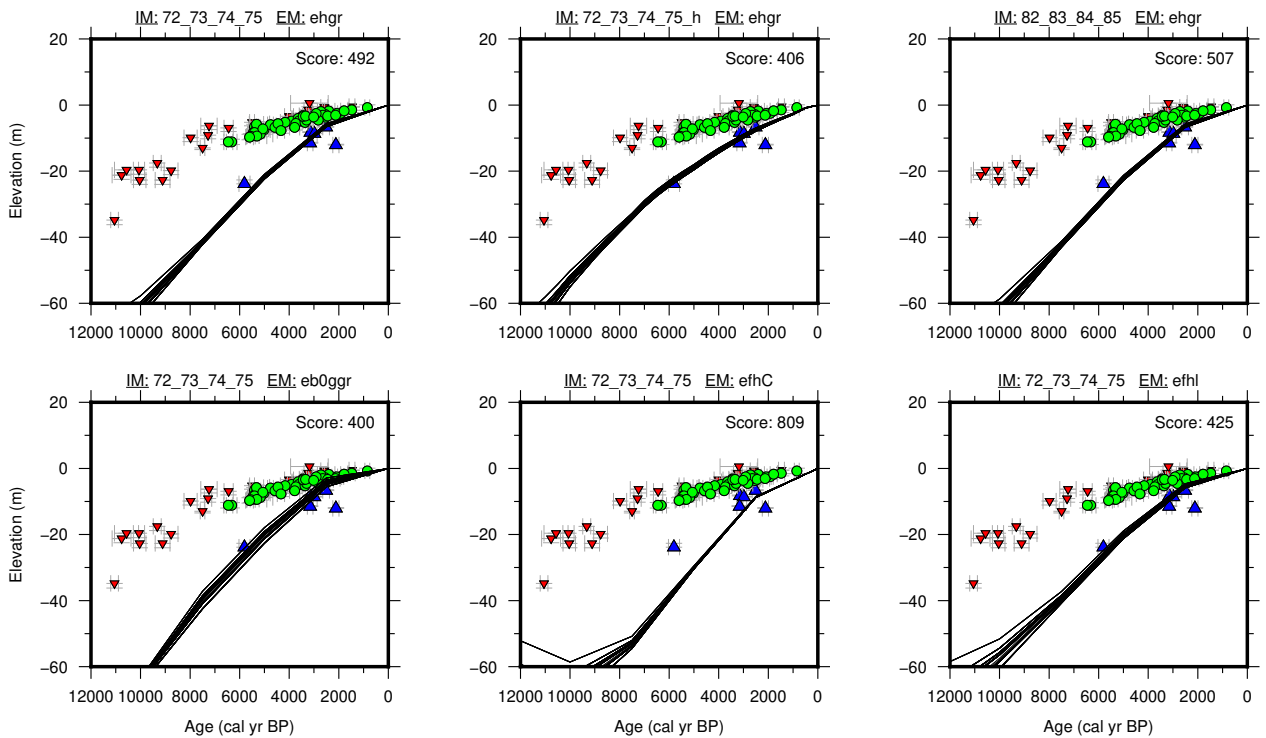
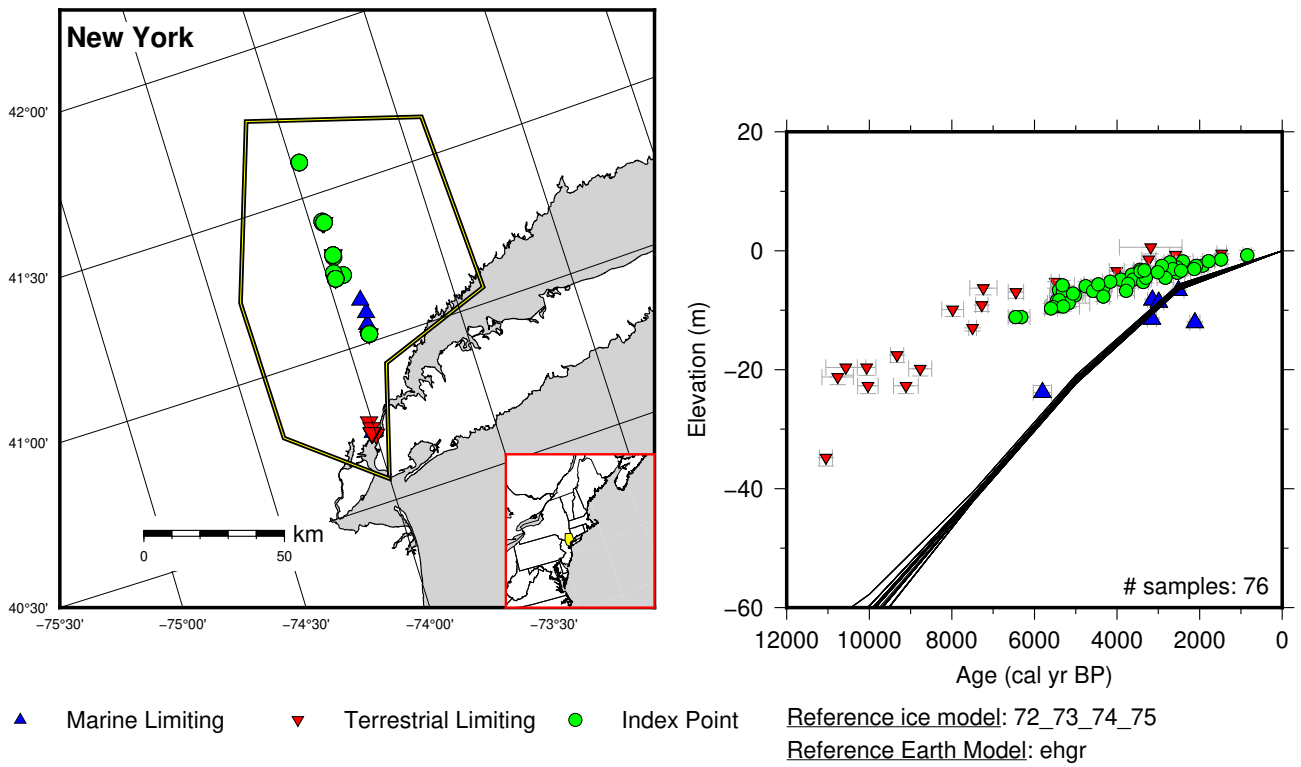


Figure 195: Paleo-sea level and comparison of six models for subregion Northeastern United States, location New York.

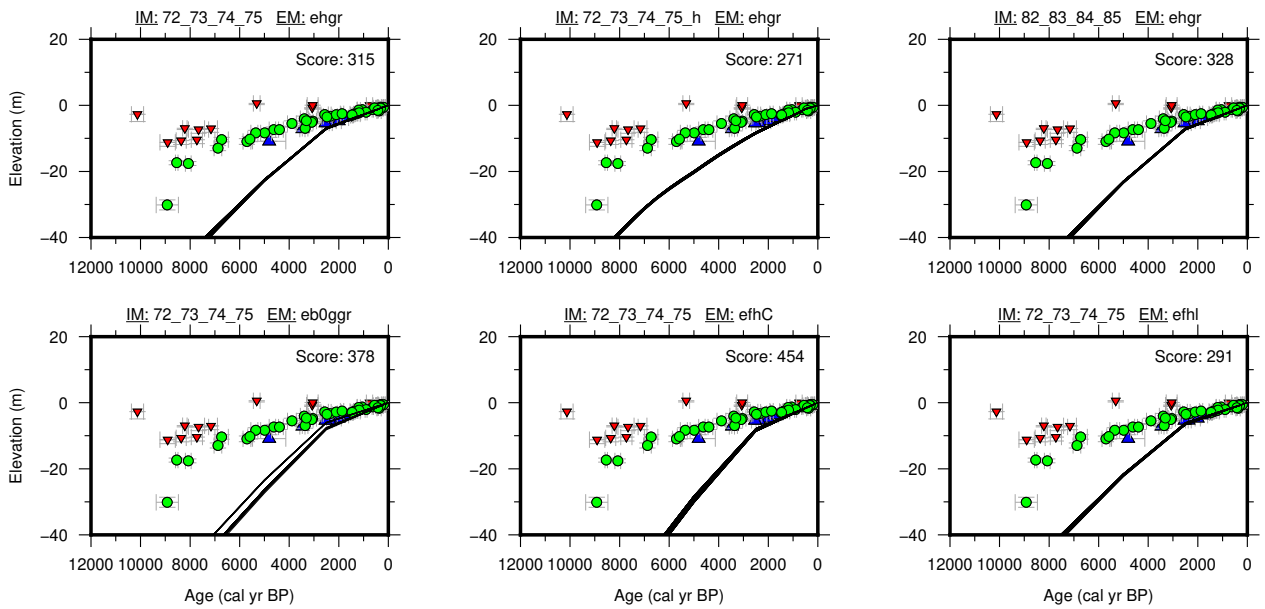
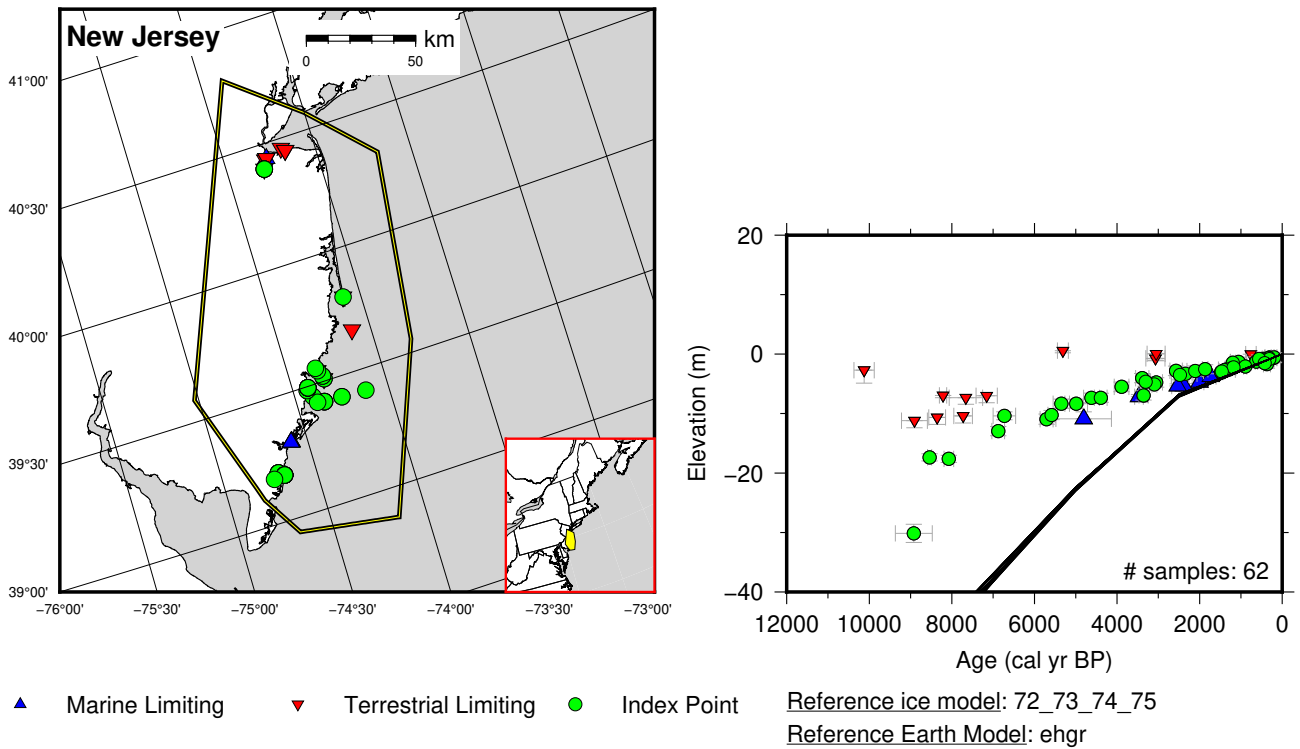


Figure 196: Paleo-sea level and comparison of six models for subregion Northeastern United States, location New Jersey.

13.9 St Laurence Lowlands

References for the data used in each location.

Rimouski: Blake and Lowdon (1976); Dionne (1990, 1999, 2001a, 2005); Dionne and Coll (1995); Dyck and Fyles (1963); Harington (2003); Héту (1994, 1998); Héту and Bail (1996); Locat (1977); Vacchi et al. (2018)

Forestville: Dietrich et al. (2017); Dionne (1996, 2001b); Dionne and Occhietti (1996); Dionne et al. (2004); Dubois et al. (1988); Martindale et al. (2020)

Quebec City: Bhiry et al. (2000); Brodeur and Allard (1985); Dionne (1988, 1997, 1998); Filion (1987); Govare and Gangloff (1989); McNeely (2006); McNeely and Brennan (2005); Occhietti et al. (2001); Parent and Occhietti (1988); Samson et al. (1977)

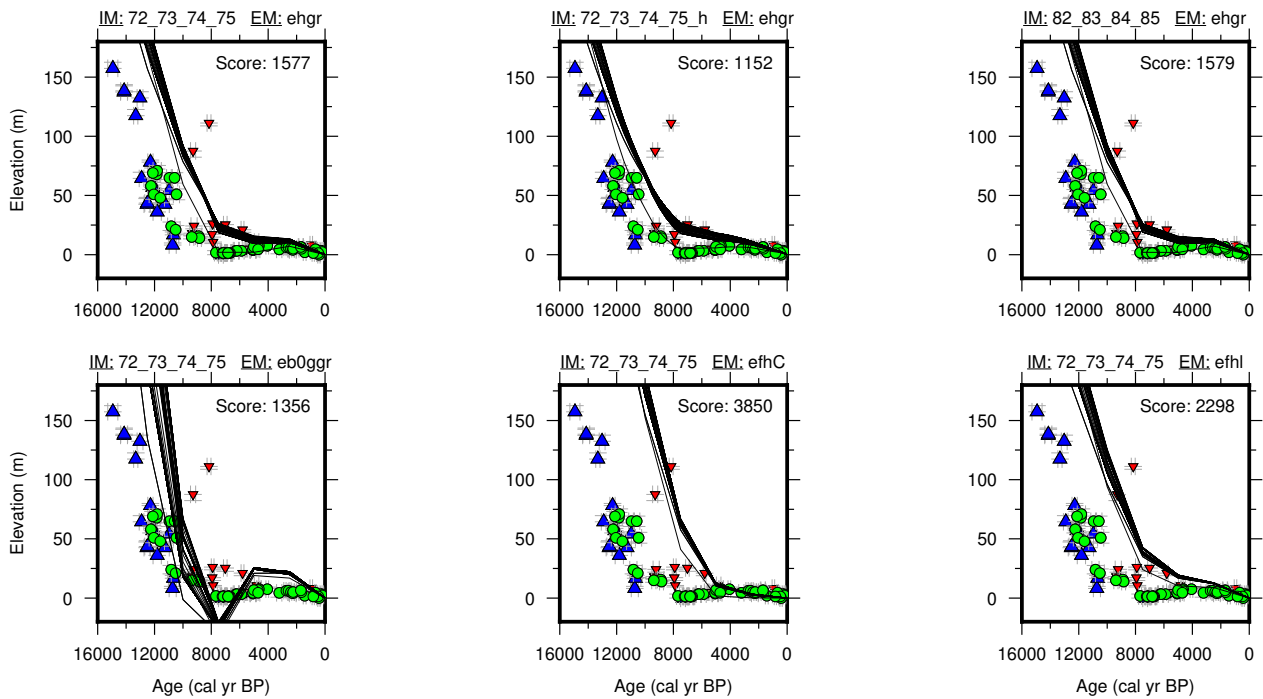
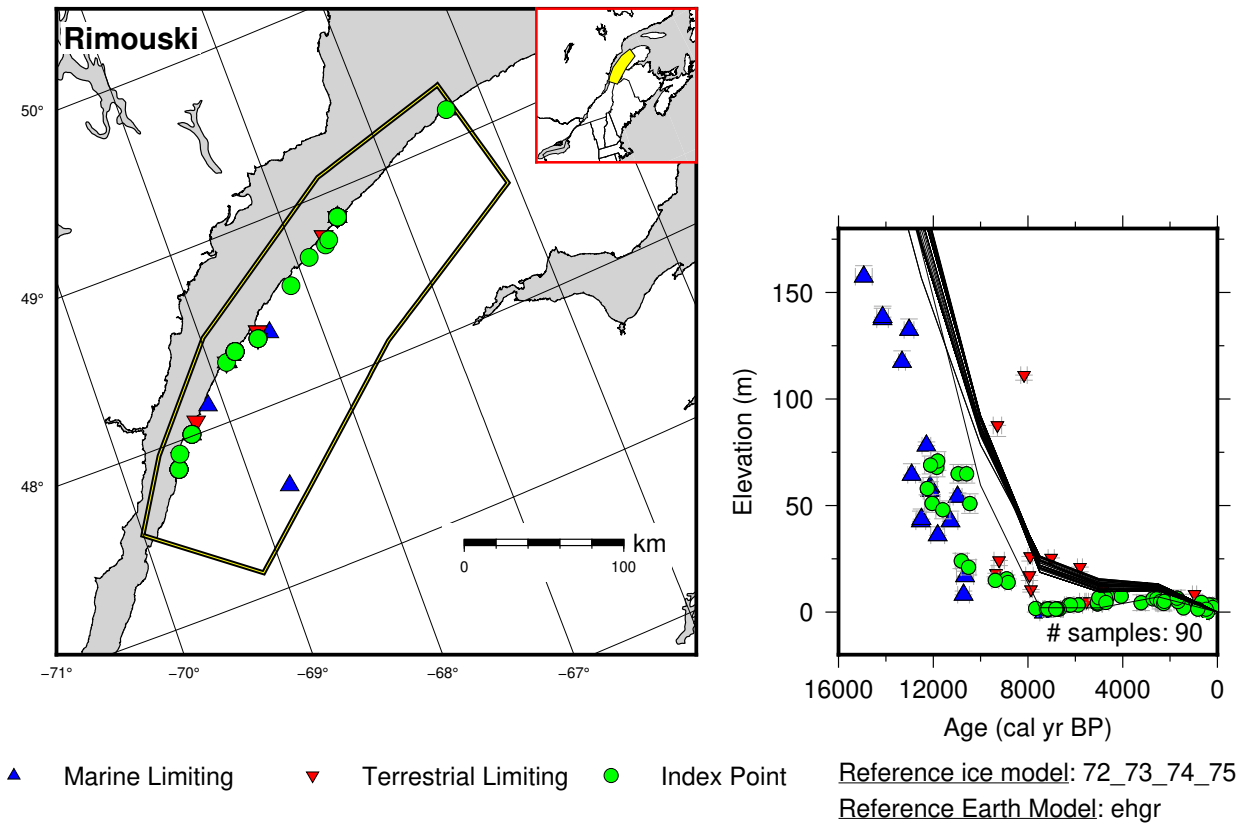


Figure 197: Paleo-sea level and comparison of six models for subregion St. Lawrence Lowlands, location Rimouski.

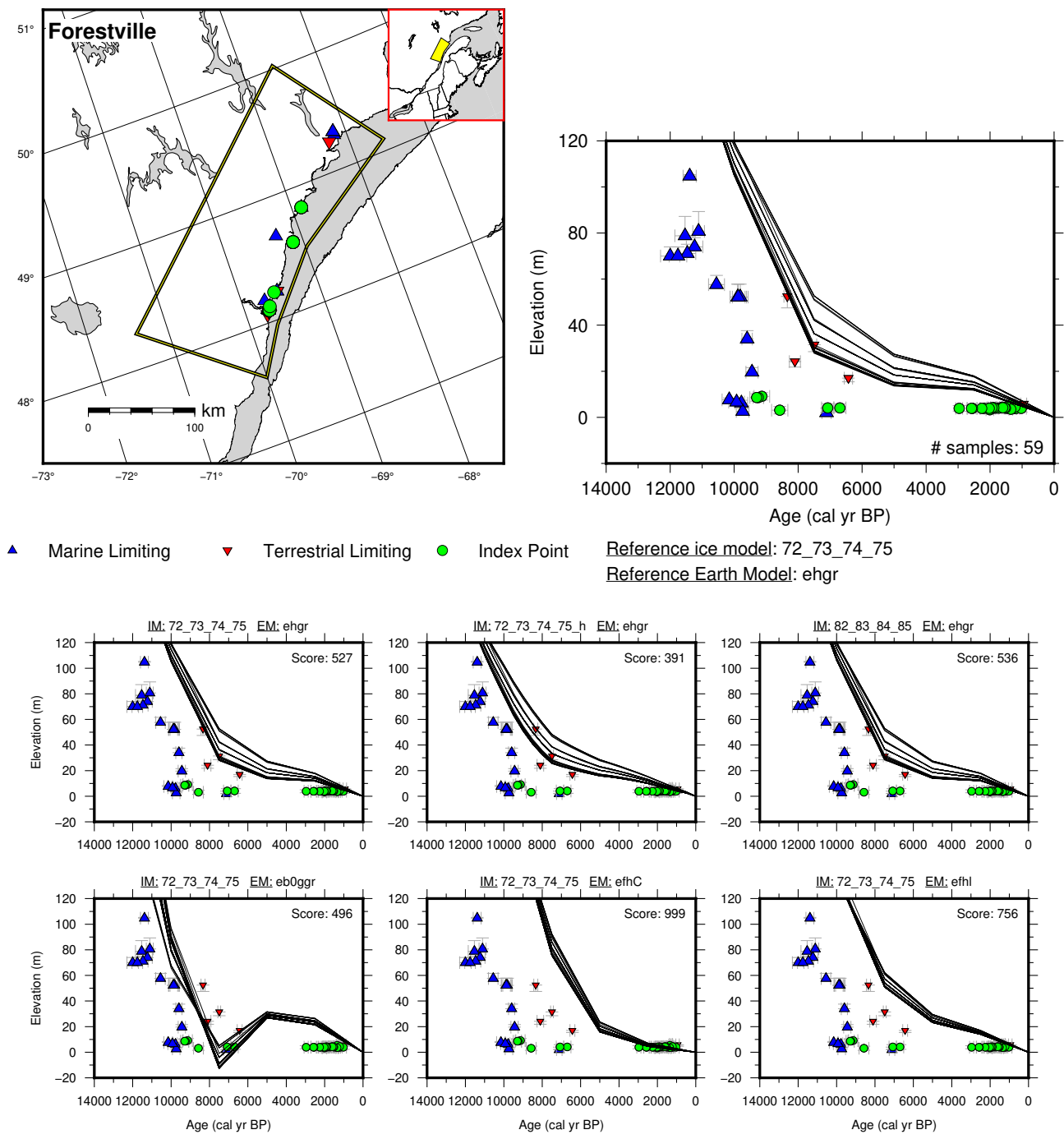


Figure 198: Paleo-sea level and comparison of six models for subregion St Laurent Lowlands, location Forestville.

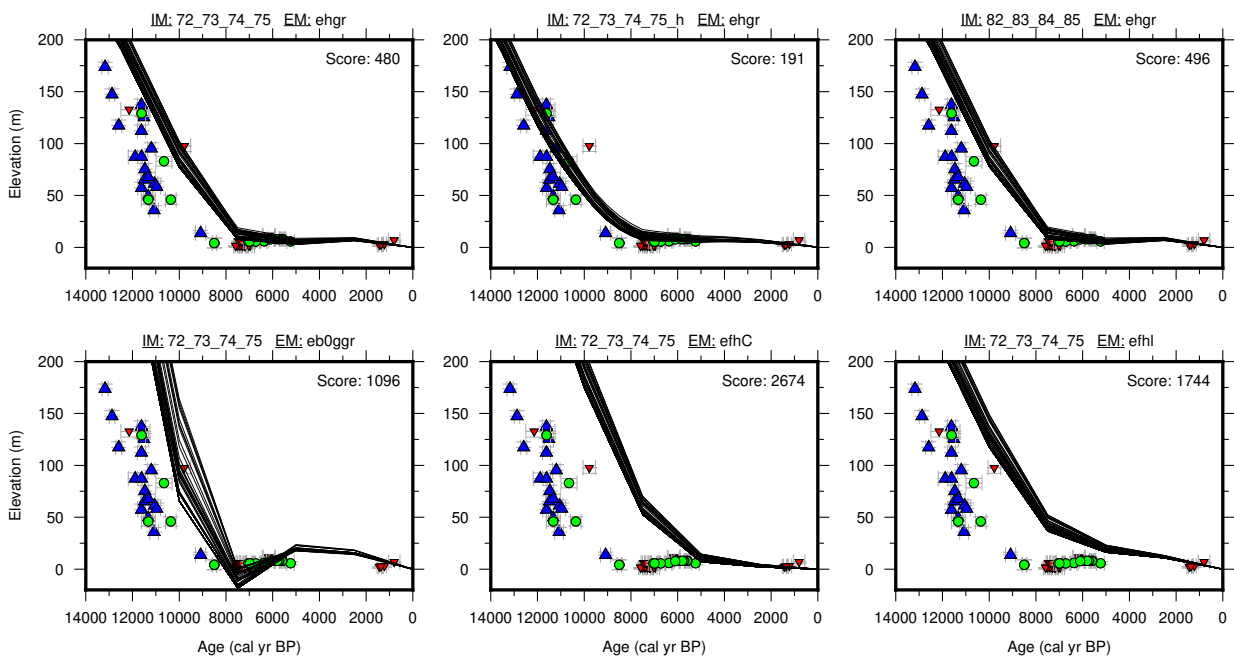
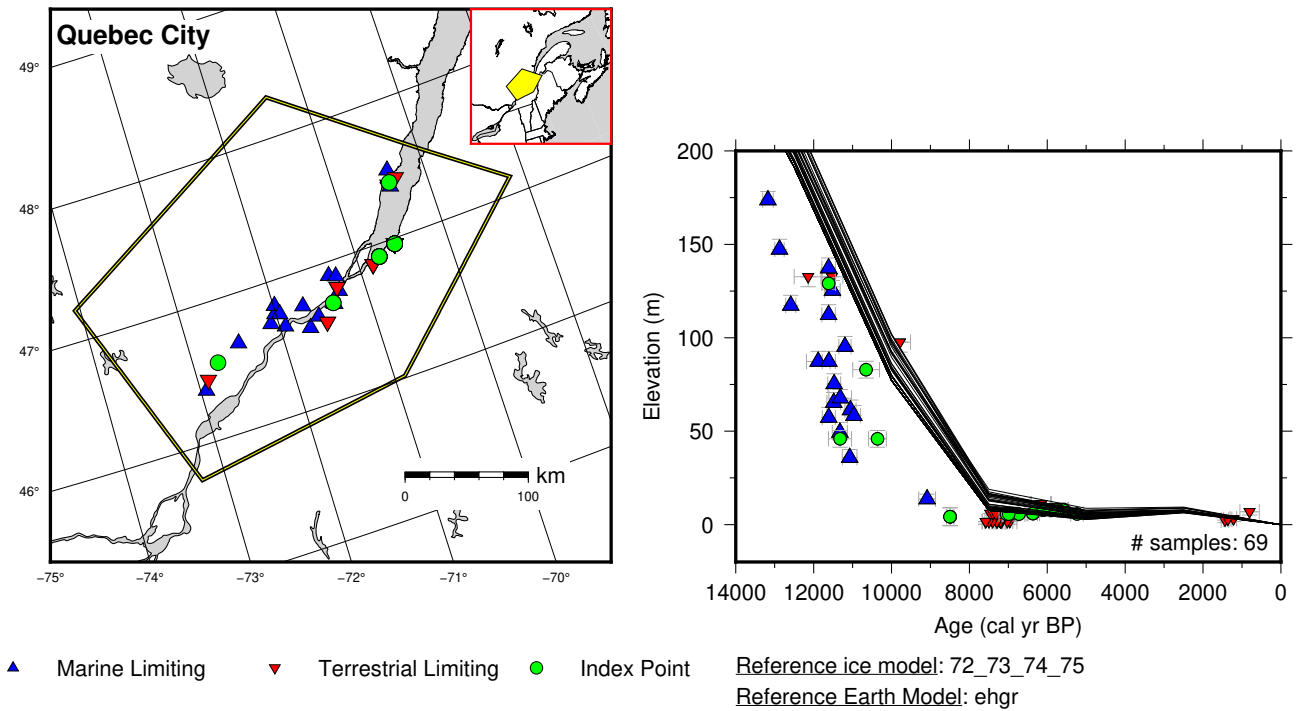


Figure 199: Paleo-sea level and comparison of six models for subregion St Lawrence Lowlands, location Quebec City.

14 Proxy Based Sea Level

14.1 Red Sea

References for the data used in each location.

Red Sea proxy 30ka: Grant et al. (2014)

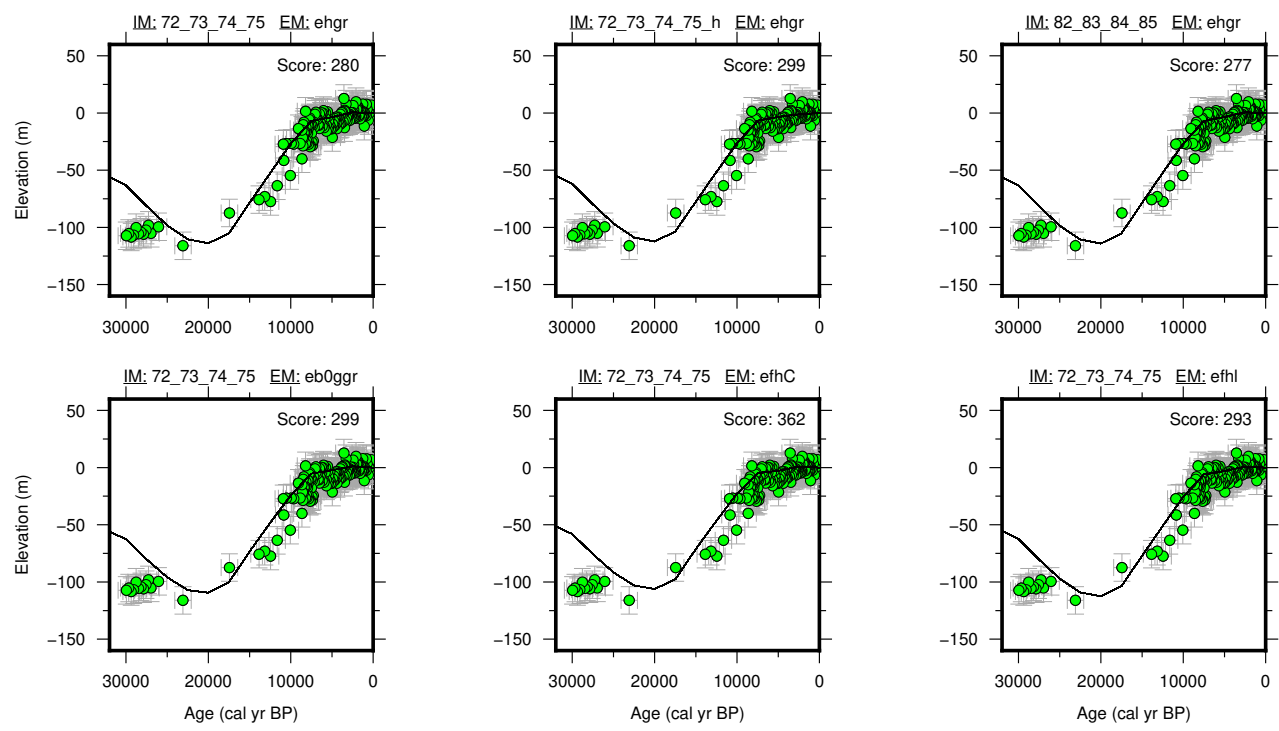
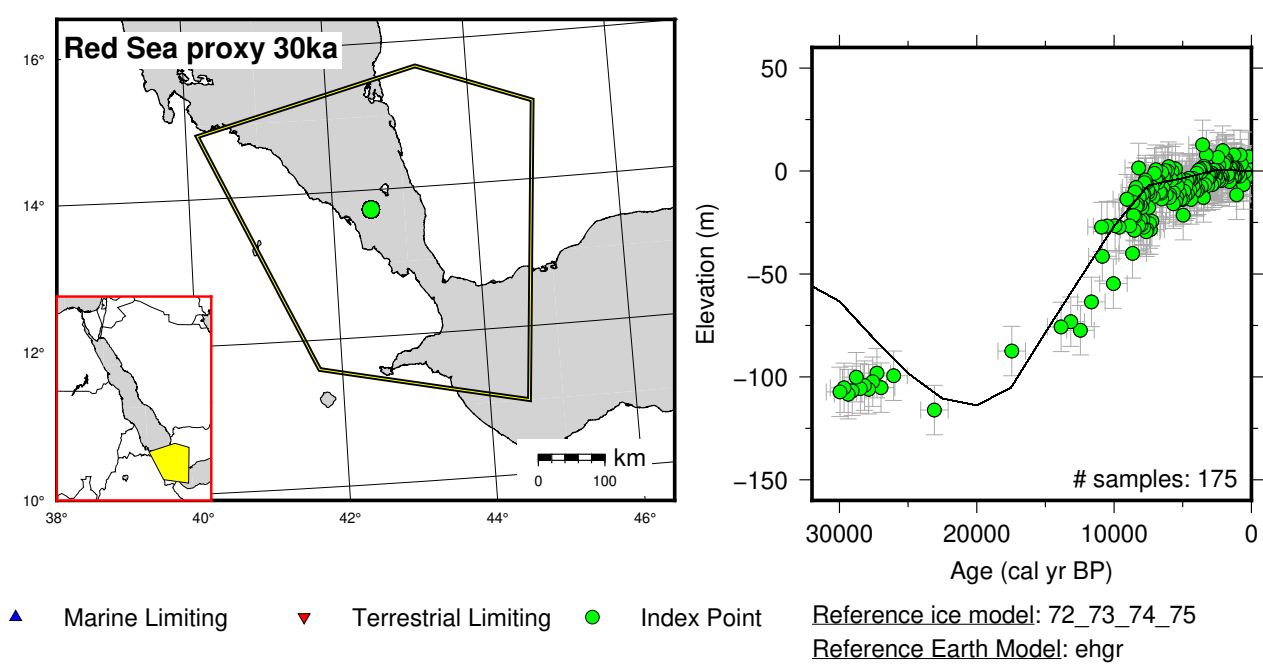


Figure 200: Paleo-sea level and comparison of six models for subregion Red Sea, location Red Sea proxy 30ka.

15 South Asia

15.1 Bay of Bengal

References for the data used in each location.

Ganges Delta: Wiedicke et al. (1999)

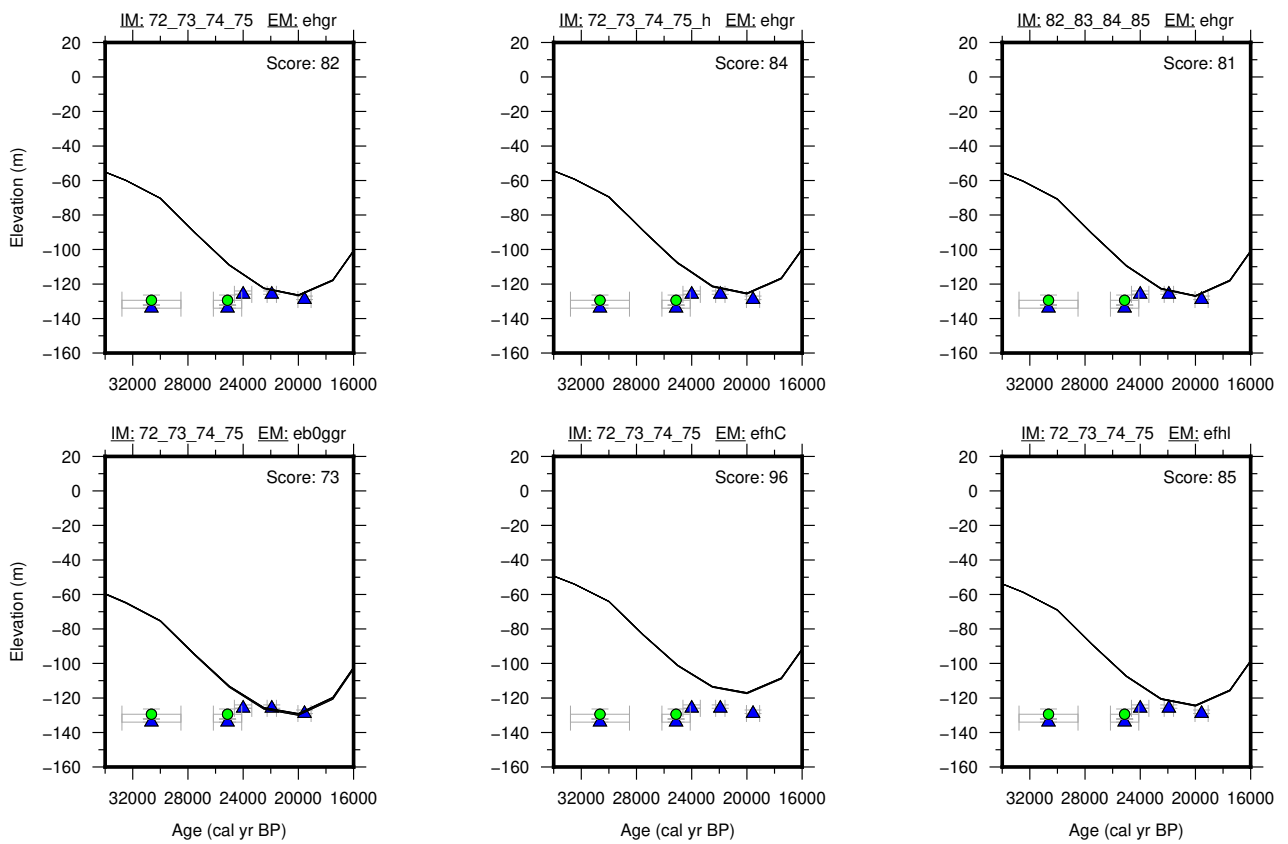
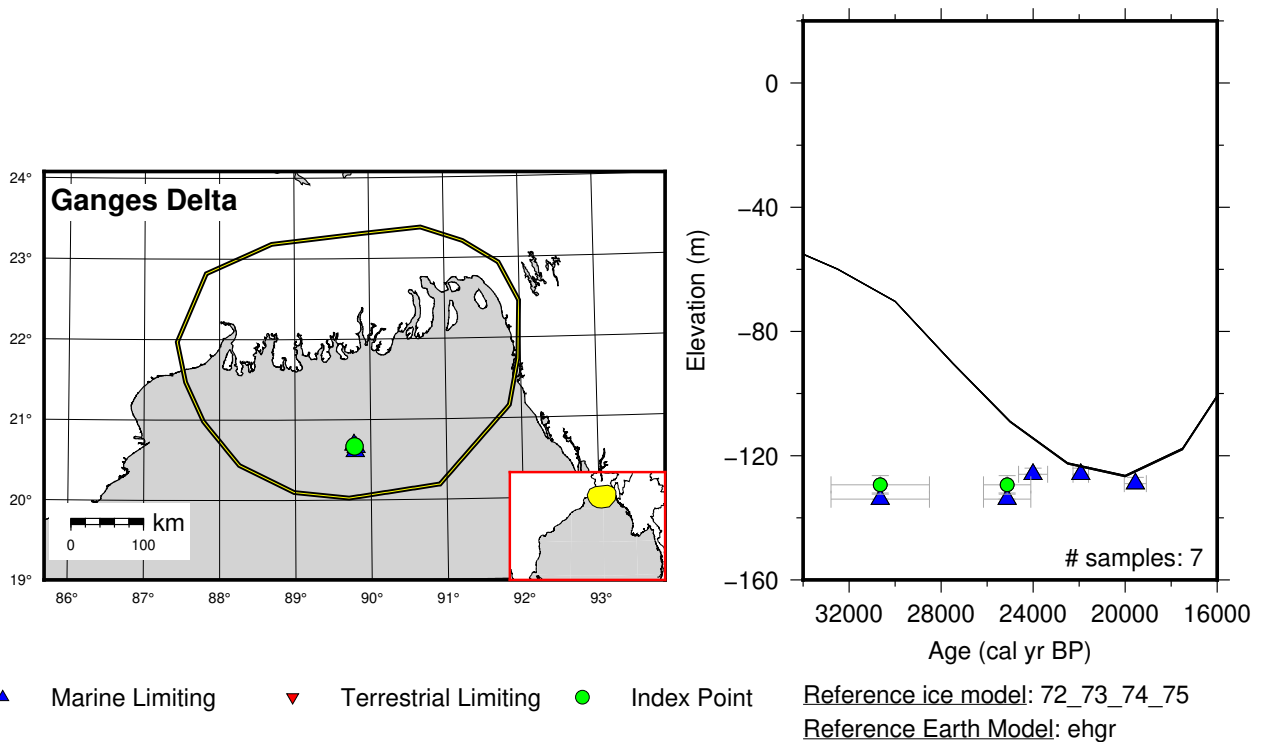


Figure 201: Paleo-sea level and comparison of six models for subregion Bay of Bengal, location Ganges Delta.

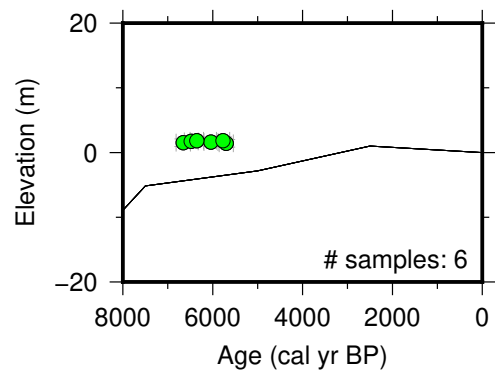
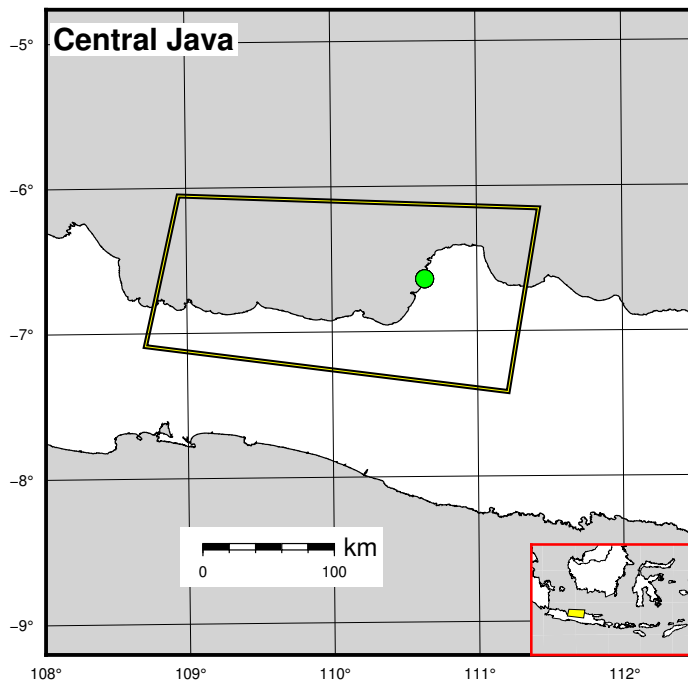
16 Southeast Asia

16.1 Java Sea

References for the data used in each location.

Central Java: Azmy et al. (2010)

South Sulawesi: de Klerk (1982); Mann et al. (2016); Tjia et al. (1972)



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point

Reference ice model: 72_73_74_75

Reference Earth Model: ehgr

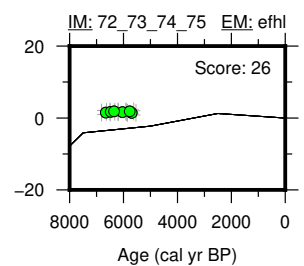
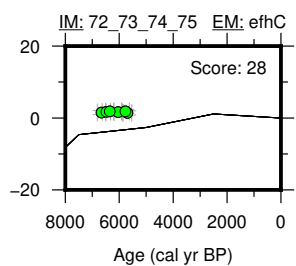
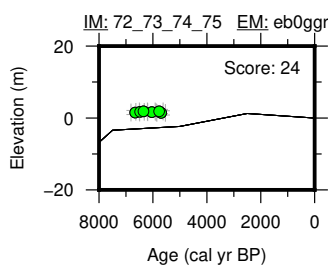
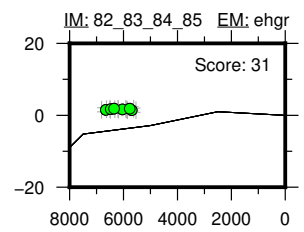
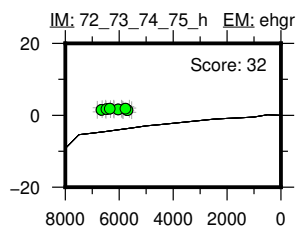
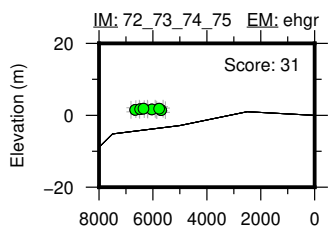


Figure 202: Paleo-sea level and comparison of six models for subregion Java Sea, location Central Java.

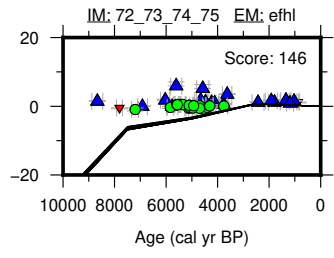
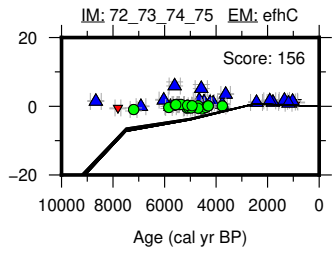
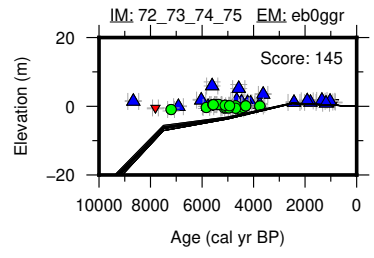
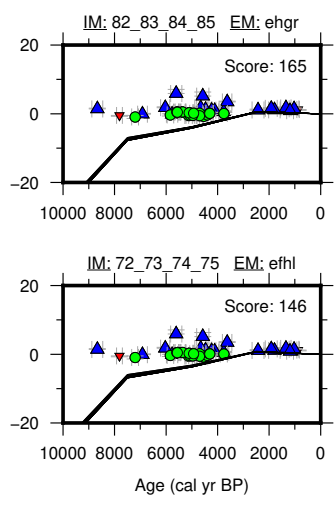
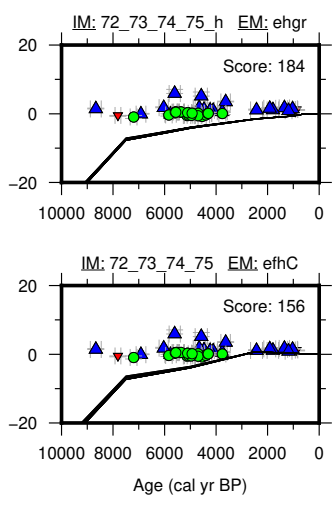
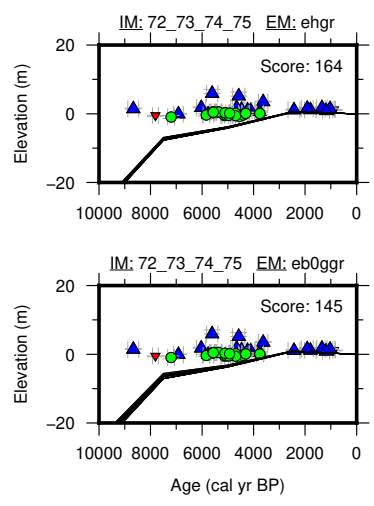
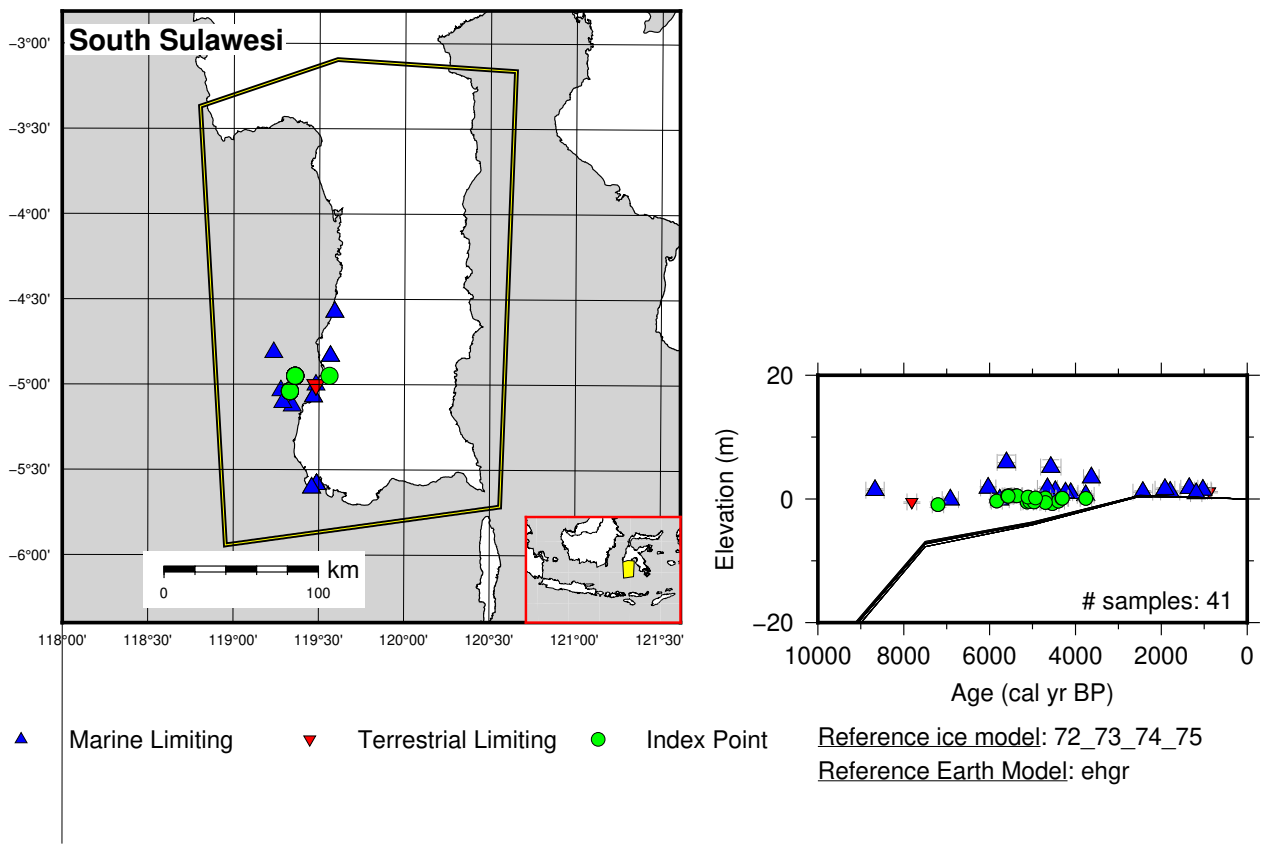


Figure 203: Paleo-sea level and comparison of six models for subregion Java Sea, location South Sulawesi.

16.2 Papua New Guinea

References for the data used in each location.

Huon Peninsula: Chappell and Polach (1991); Cutler et al. (2003); Edwards et al. (1993); Hibbert et al. (2016)

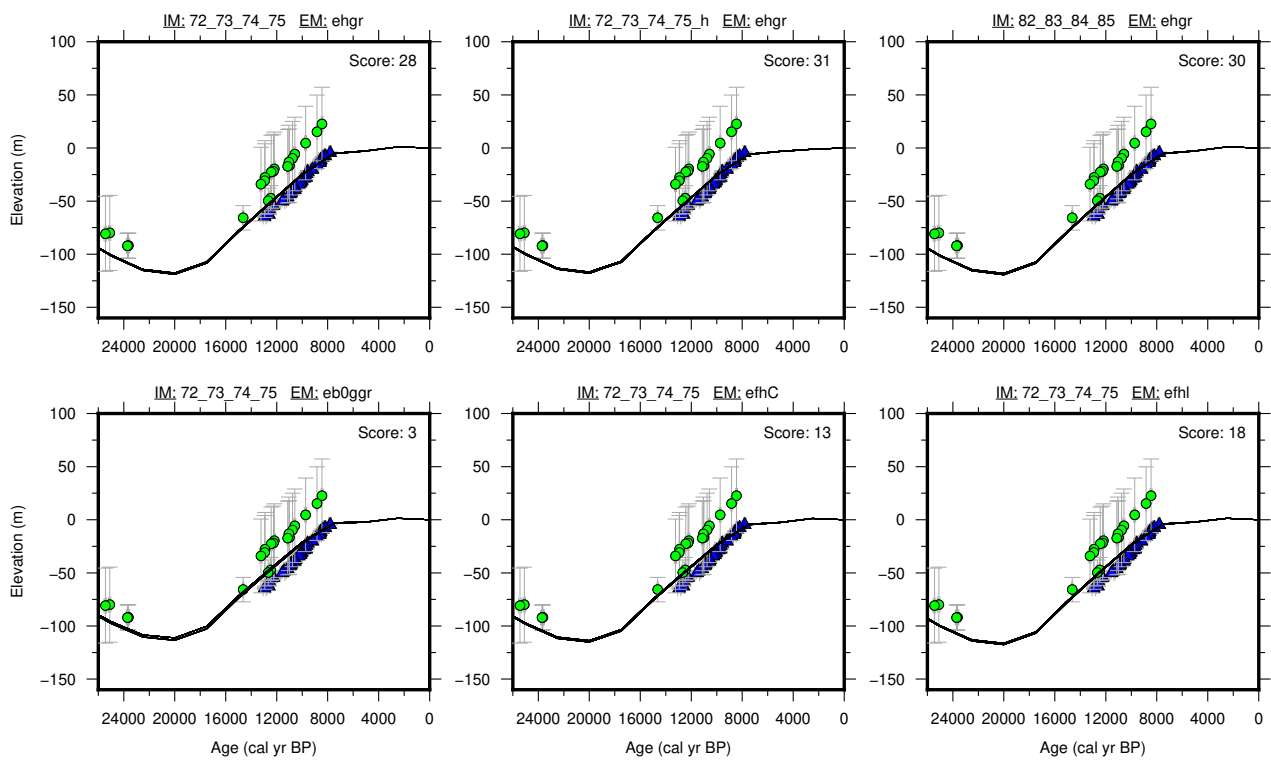
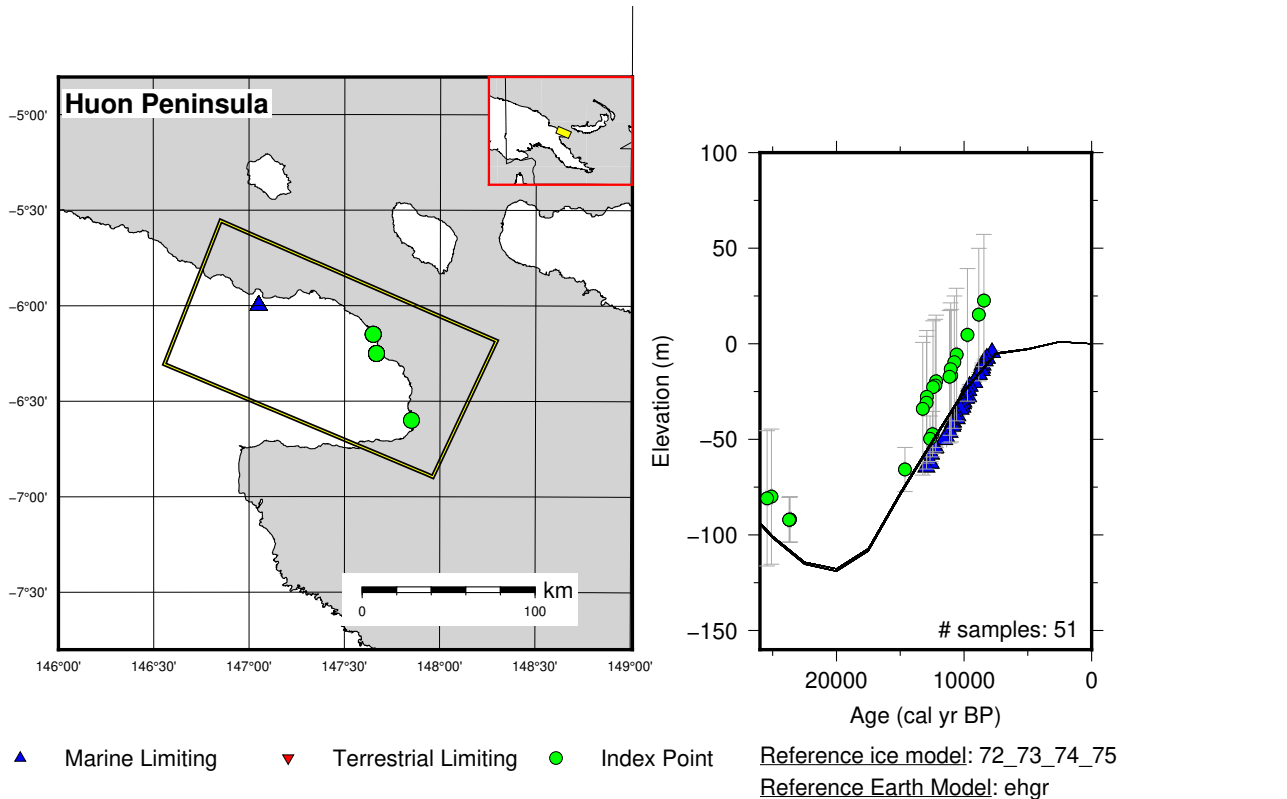


Figure 204: Paleo-sea level and comparison of six models for subregion Papua New Guinea, location Huon Peninsula.

16.3 Sundaland

References for the data used in each location.

Chao Phraya: Horton et al. (2005); Sinsakul (1992); Somboon (1988); Somboon and Thiramongkol (1992)

Mekong Delta: Hanebuth et al. (2012); Stattegger et al. (2013); Tamura et al. (2007, 2009)

Strait Of Malacca: Bird et al. (2007, 2010); Geyh et al. (1979); Hassan (2001); Hesp et al. (1998); Horton et al. (2005); Tjia and Fujii (1992)

Sunda Shelf: Hanebuth et al. (2000, 2003, 2009)

Vietnam Shelf: Hanebuth et al. (2000)

Phuket: Scheffers et al. (2012); Scoffin and Le Tissier (1998)

Thale Noi: Horton et al. (2005)

West Malay Peninsula: Tjia and Fujii (1992); Tjia et al. (1972)

East Malay Peninsula: Parham et al. (2014); Tjia and Fujii (1992)

Southeast Malay Peninsula: Hassan (2001); Horton et al. (2005); Tjia and Fujii (1992); Tjia et al. (1983)

Belitung Island: Meltzner et al. (2017)

Ca Na: Stattegger et al. (2013)

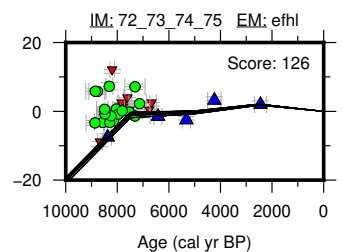
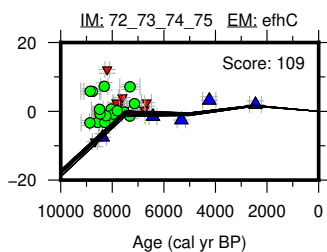
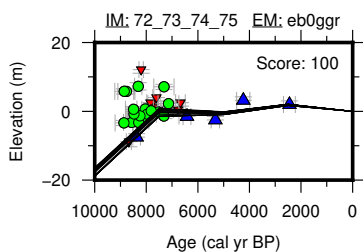
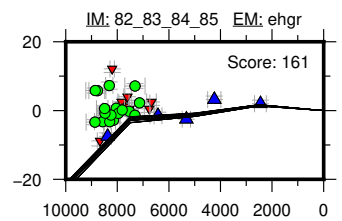
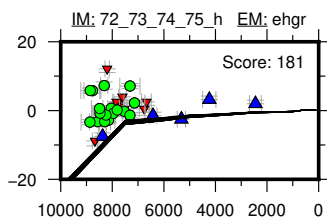
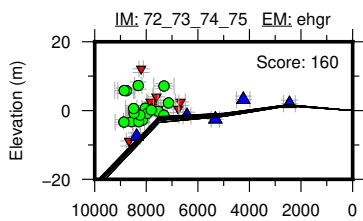
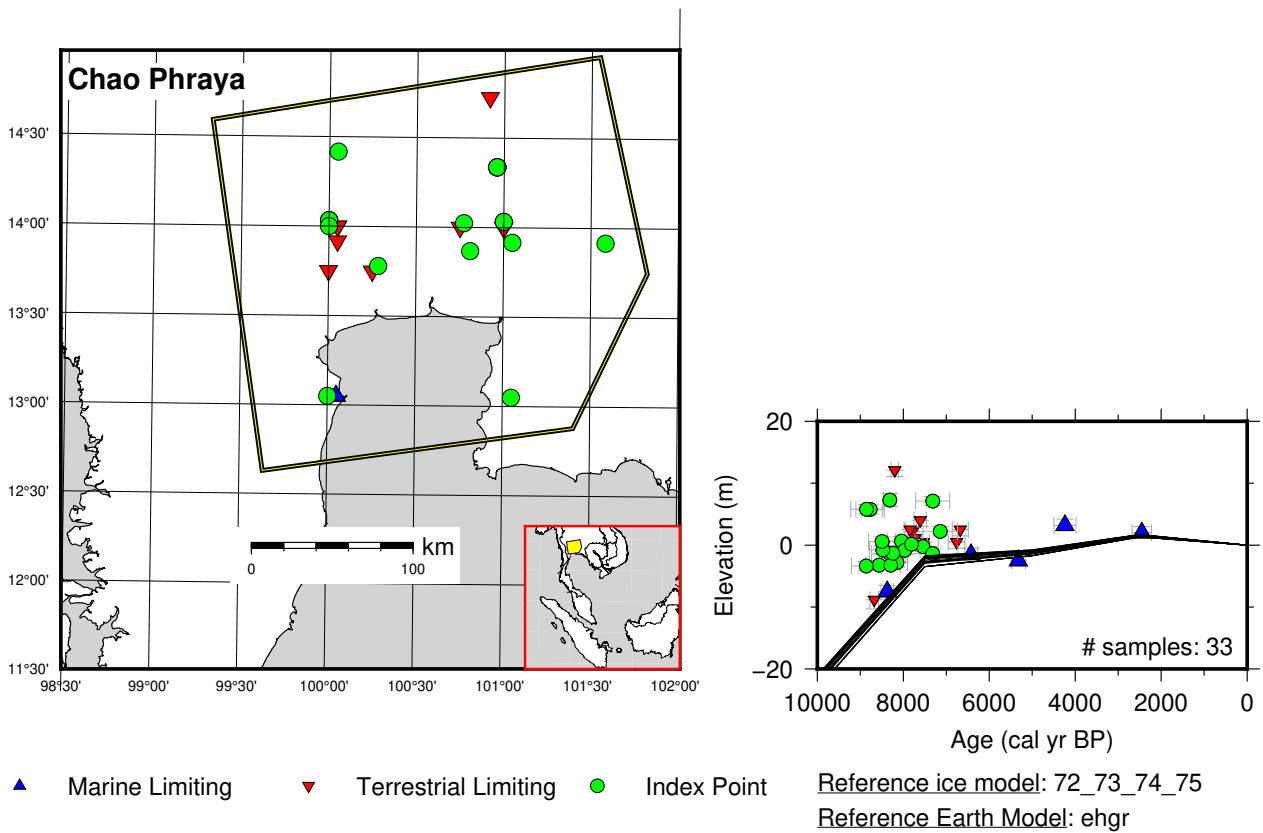


Figure 205: Paleo-sea level and comparison of six models for subregion Sundaland, location Chao Phraya.

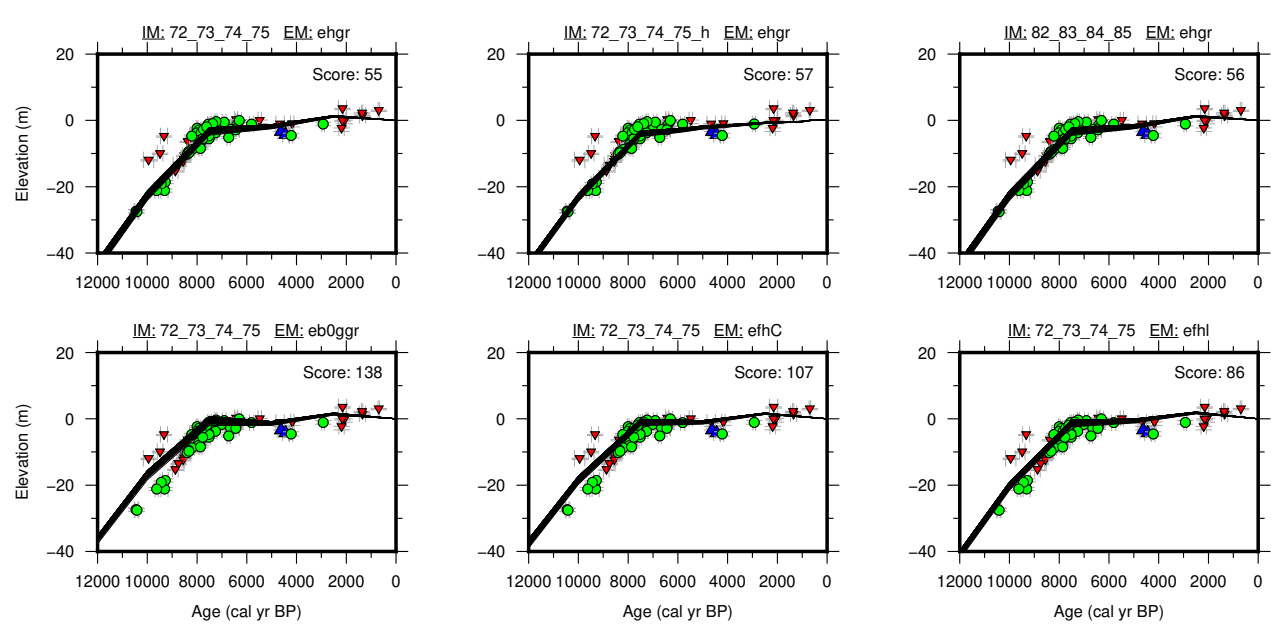
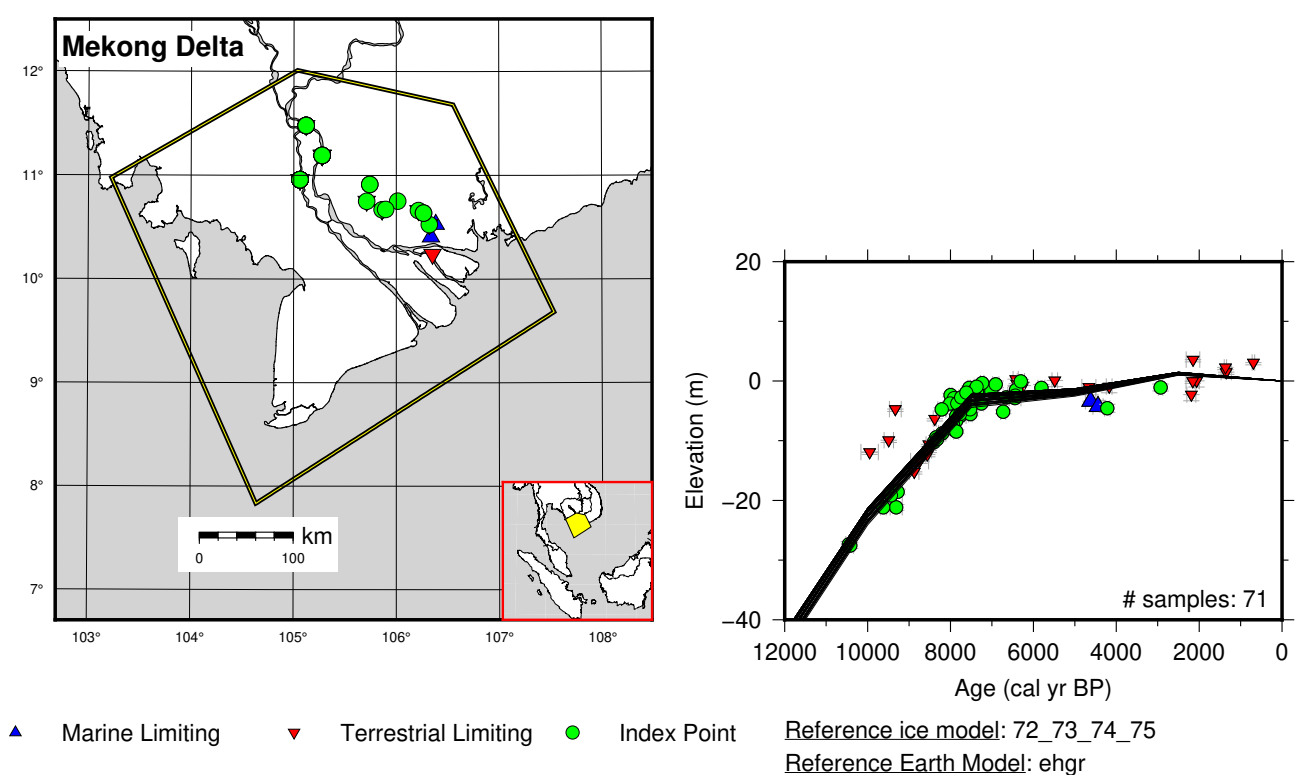


Figure 206: Paleo-sea level and comparison of six models for subregion Sundaland, location Mekong Delta.

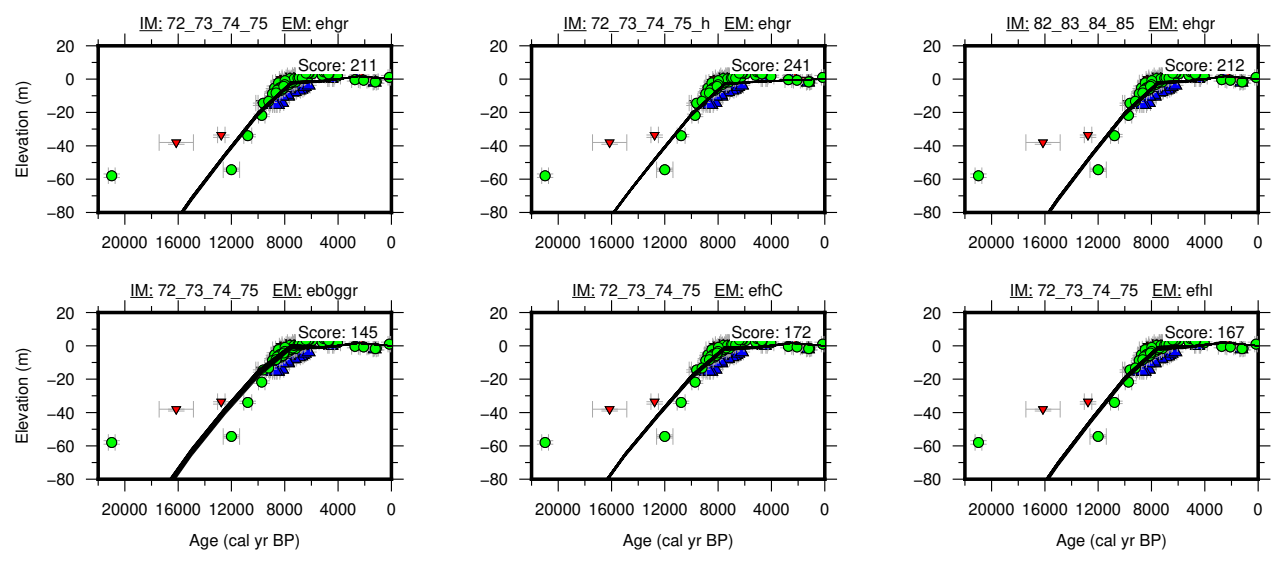
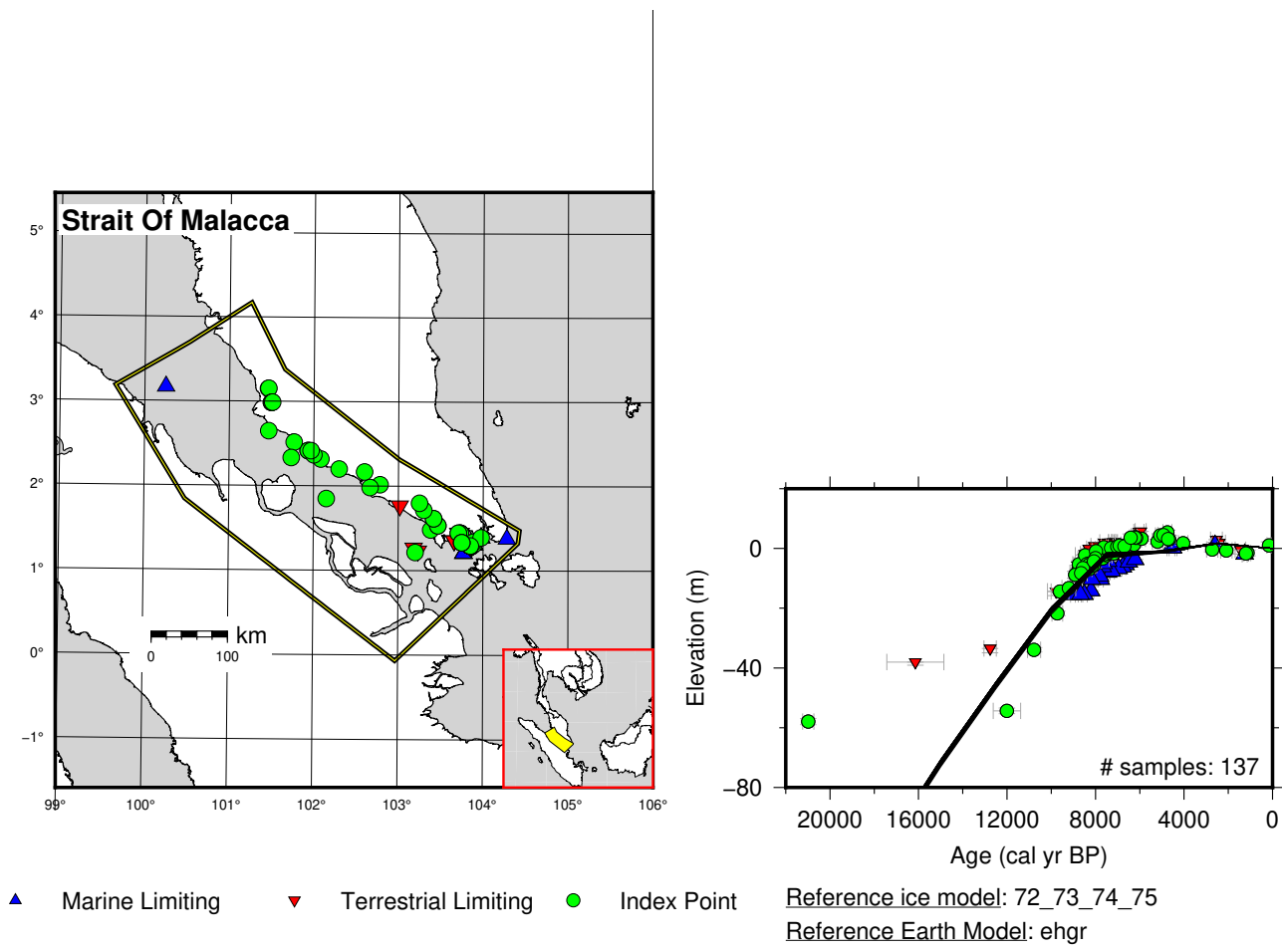
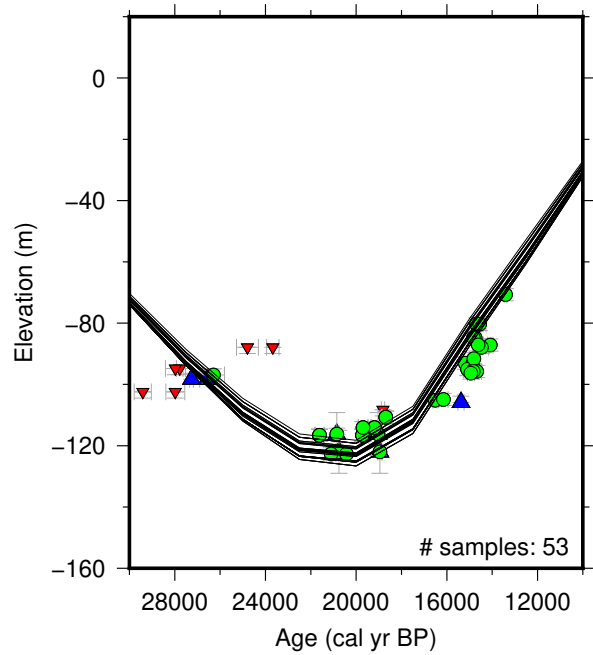
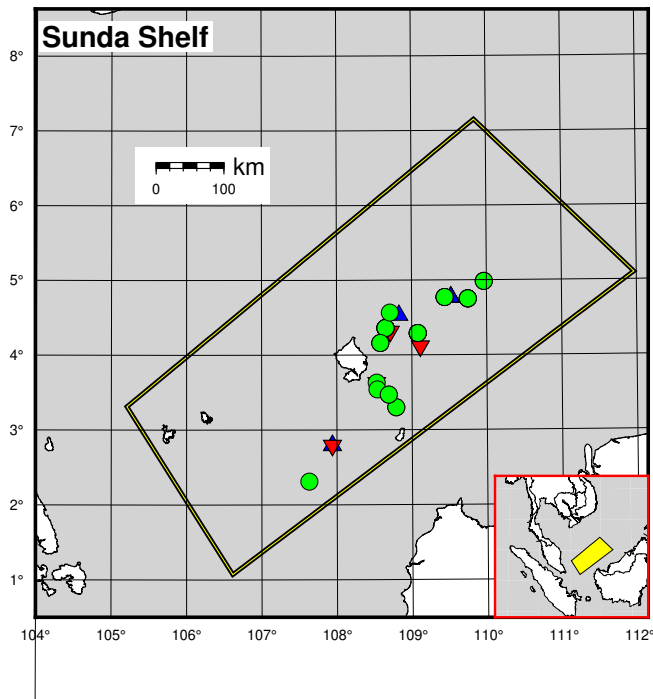


Figure 207: Paleo-sea level and comparison of six models for subregion Sundaland, location Strait Of Malacca.



▲ Marine Limiting
 ▼ Terrestrial Limiting
 ● Index Point
 Reference ice model: 72_73_74_75
 Reference Earth Model: ehgr

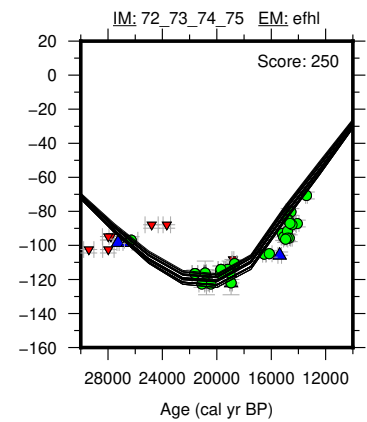
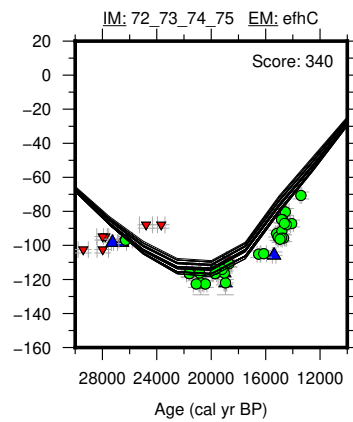
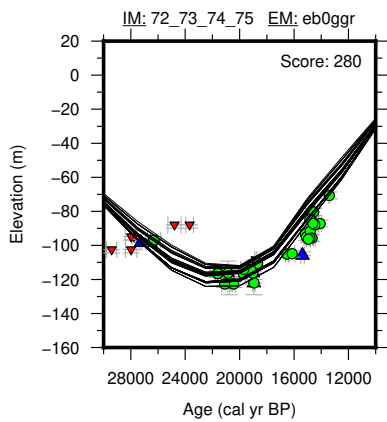
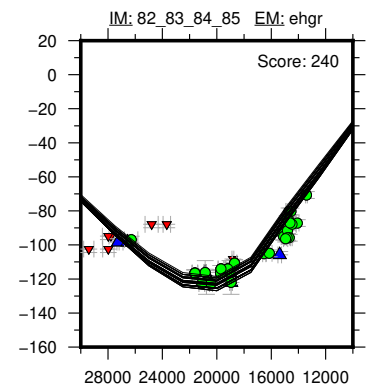
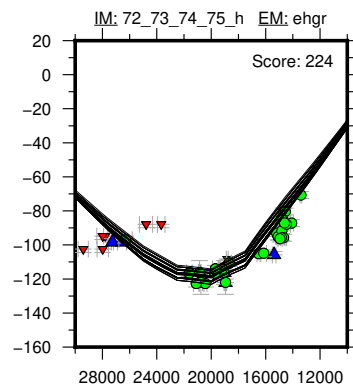
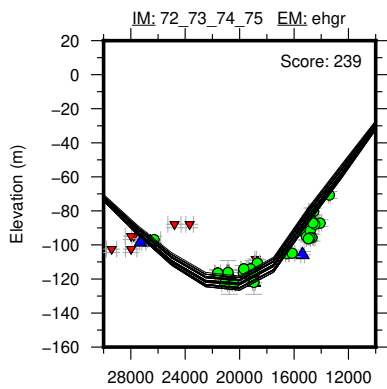
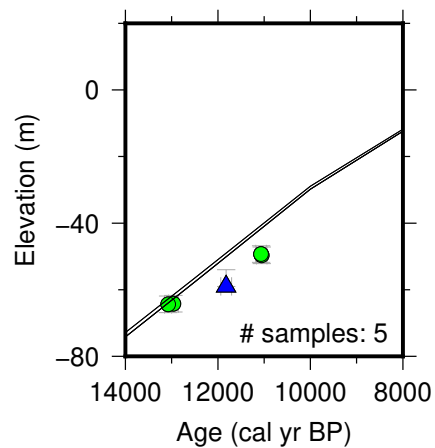
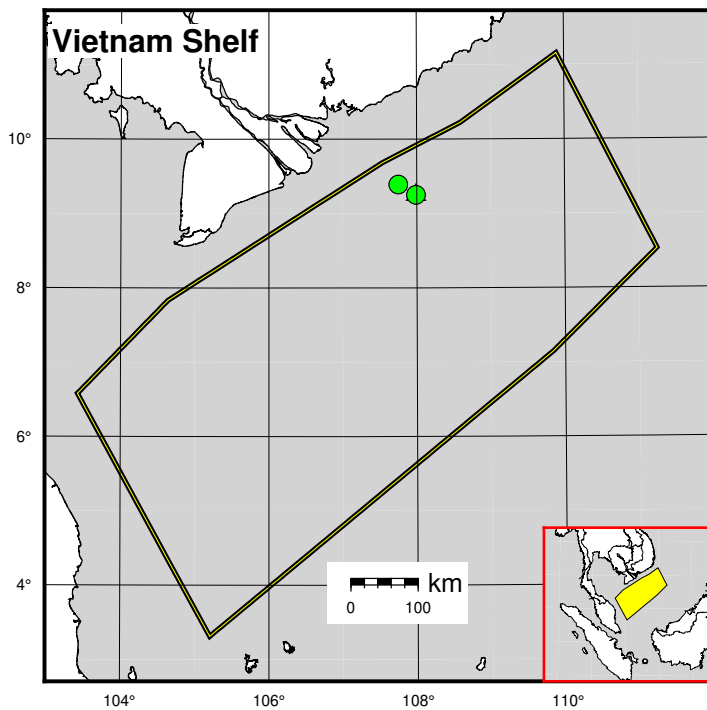


Figure 208: Paleo-sea level and comparison of six models for subregion Sundaland, location Sunda Shelf.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point

Reference ice model: 72_73_74_75
Reference Earth Model: ehgr

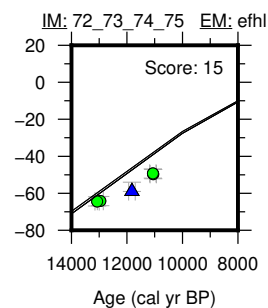
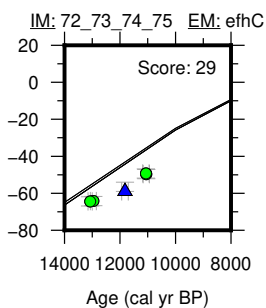
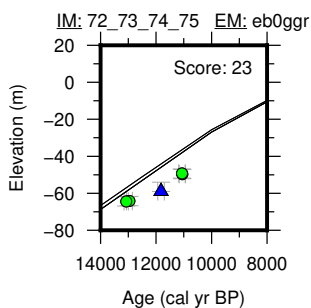
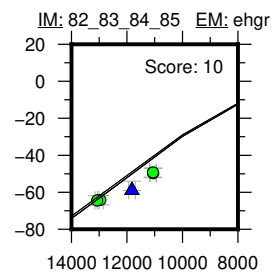
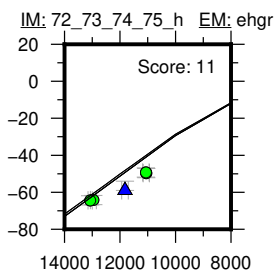
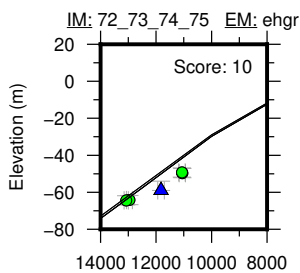
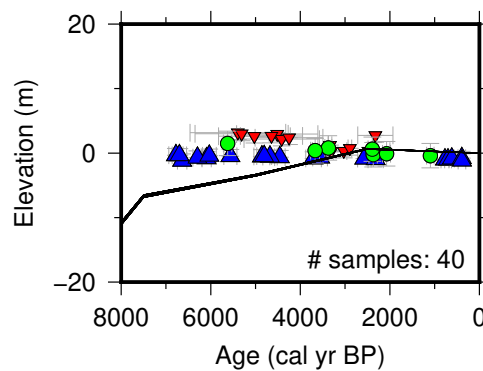
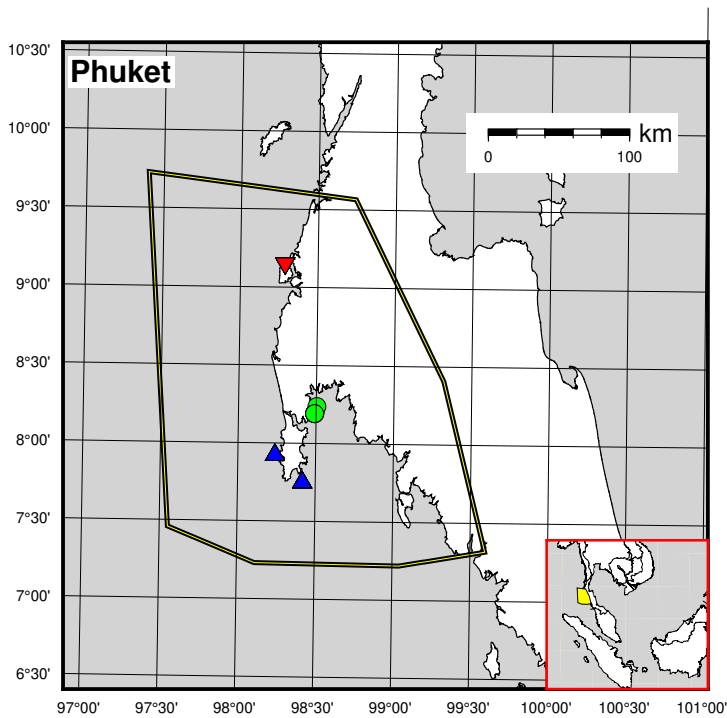


Figure 209: Paleo-sea level and comparison of six models for subregion Sundaland, location Vietnam Shelf.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point

Reference ice model: 72_73_74_75
Reference Earth Model: ehgr

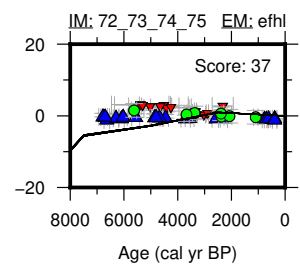
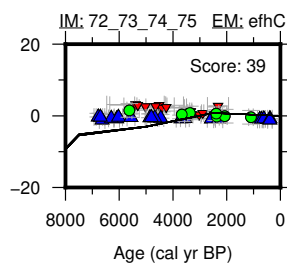
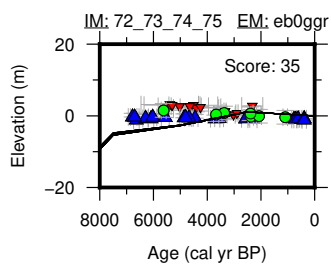
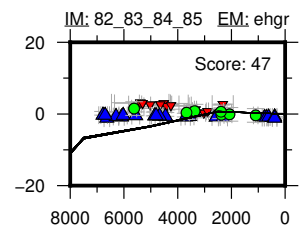
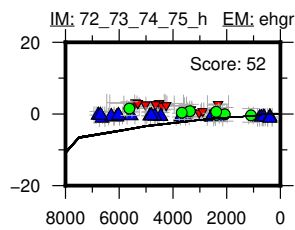
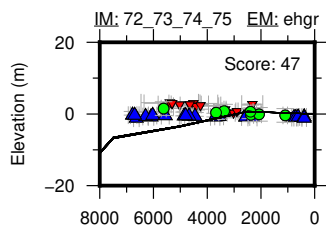
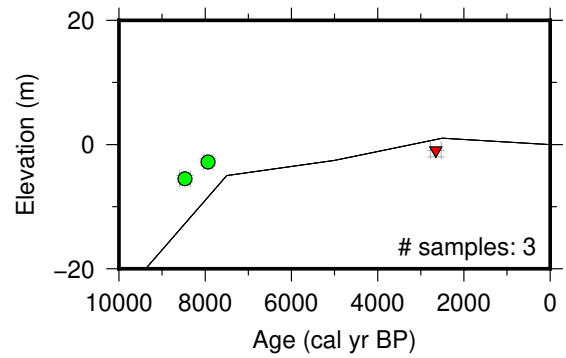
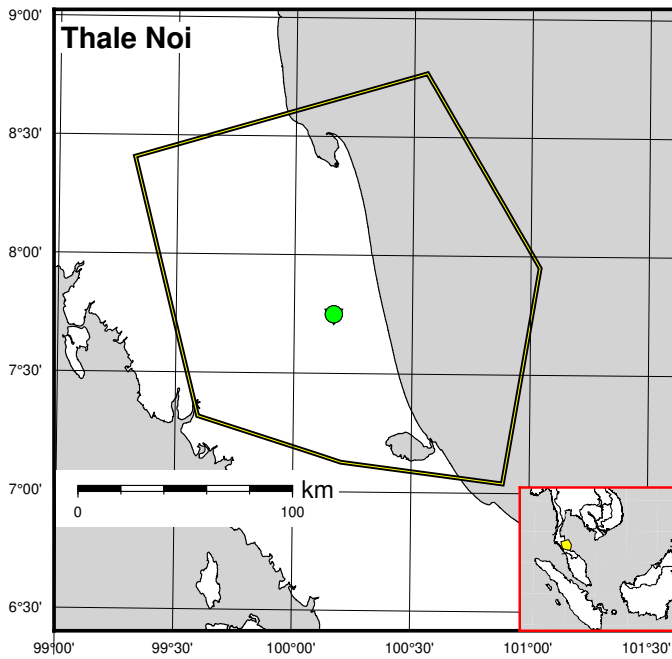


Figure 210: Paleo-sea level and comparison of six models for subregion Sundaland, location Phuket.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point

Reference ice model: 72_73_74_75

Reference Earth Model: ehgr

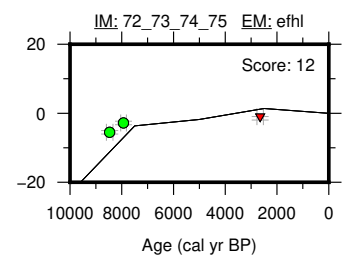
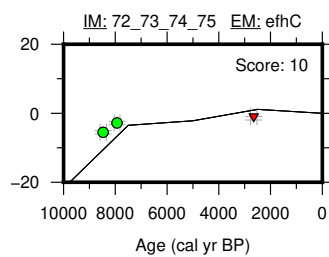
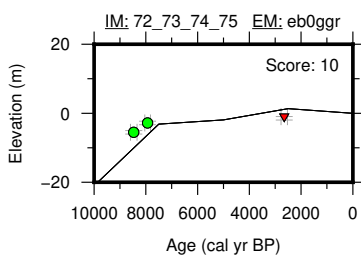
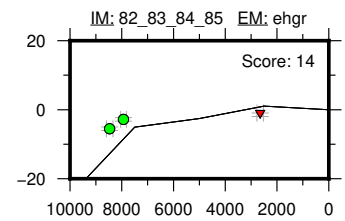
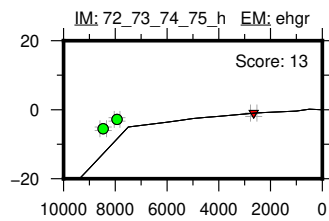
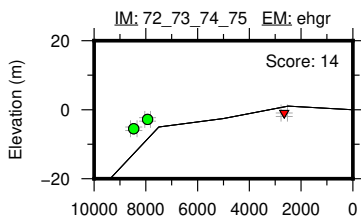
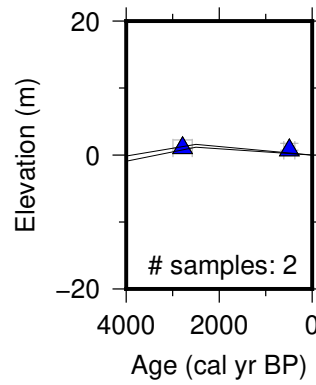
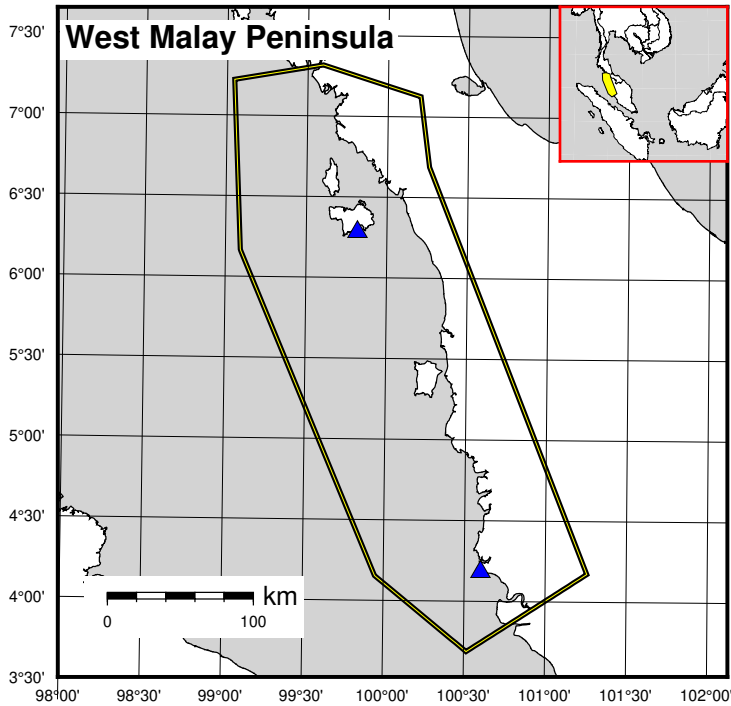


Figure 211: Paleo-sea level and comparison of six models for subregion Sundaland, location Thale Noi.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point

Reference ice model: 72_73_74_75
Reference Earth Model: ehgr

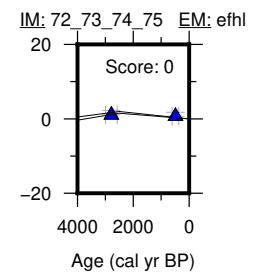
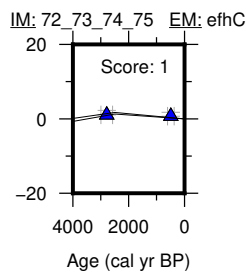
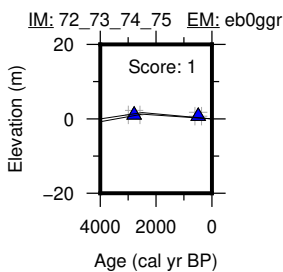
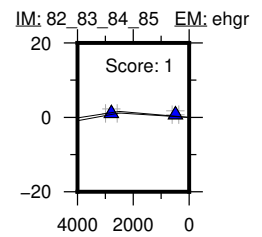
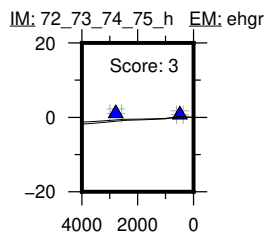
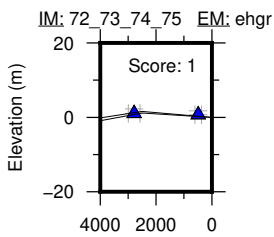
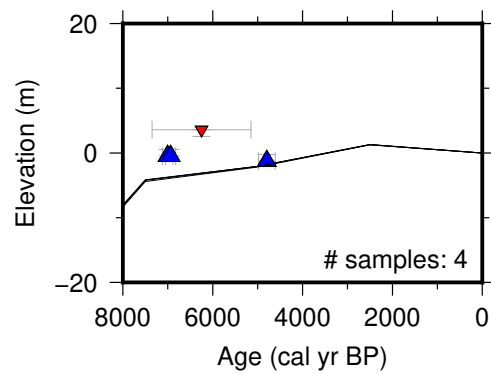
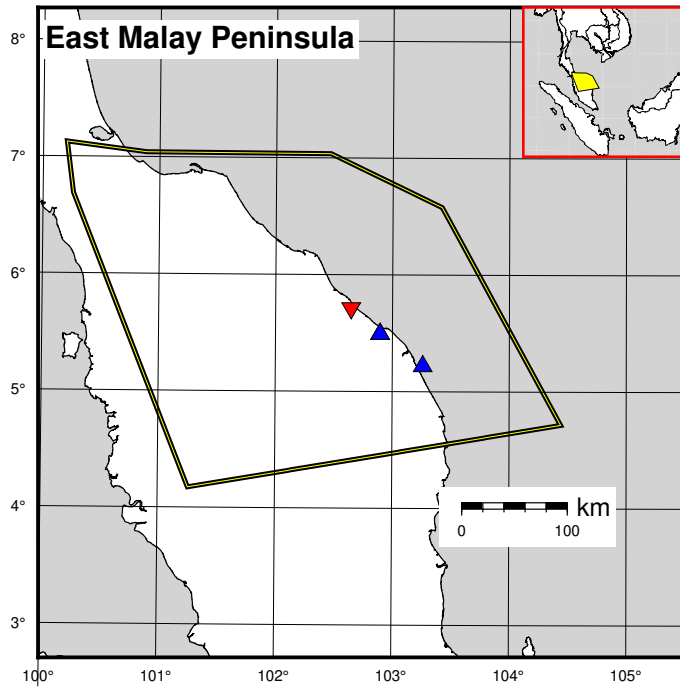


Figure 212: Paleo-sea level and comparison of six models for subregion Sundaland, location West Malay Peninsula.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point

Reference ice model: 72_73_74_75
Reference Earth Model: ehgr

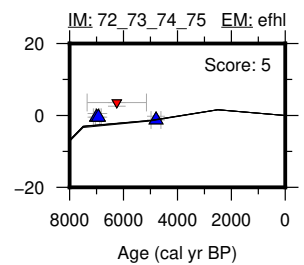
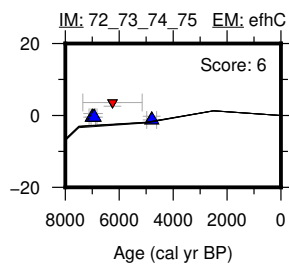
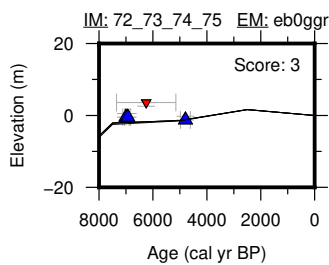
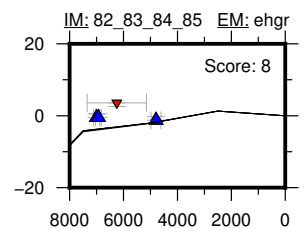
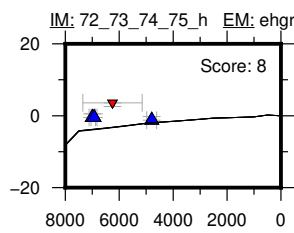
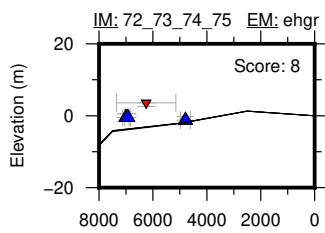
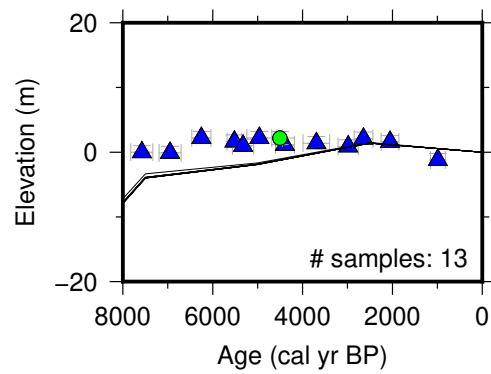
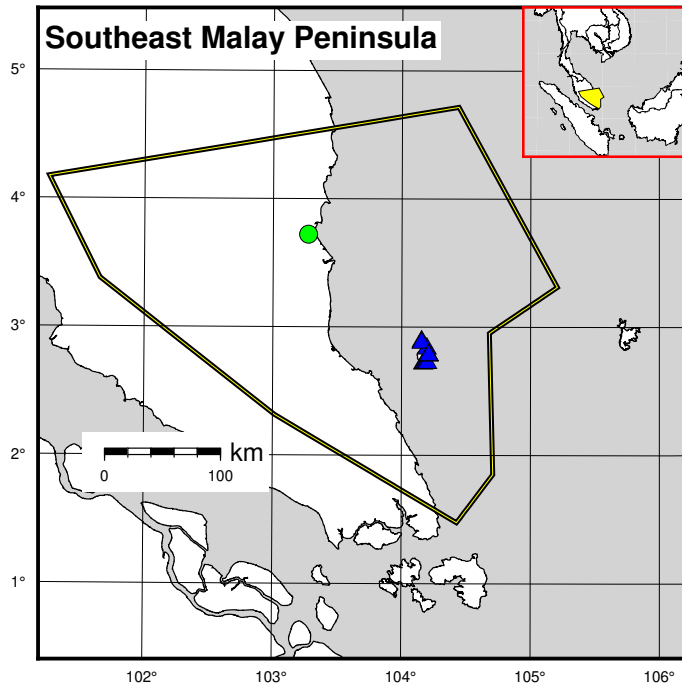


Figure 213: Paleo-sea level and comparison of six models for subregion Sundaland, location East Malay Peninsula.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point

Reference ice model: 72_73_74_75
Reference Earth Model: ehgr

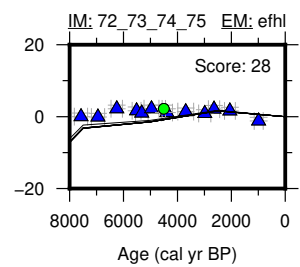
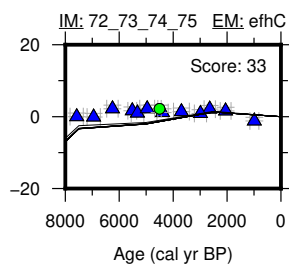
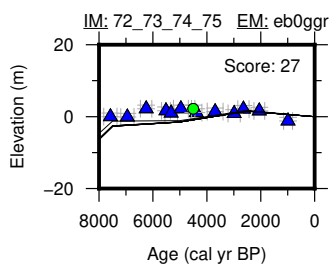
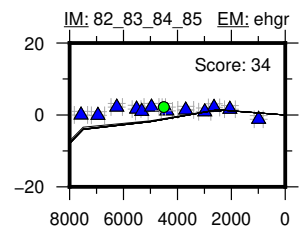
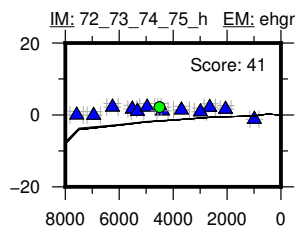
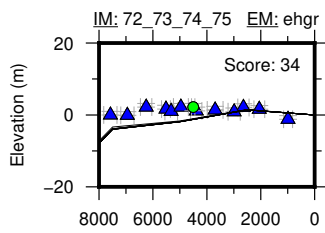
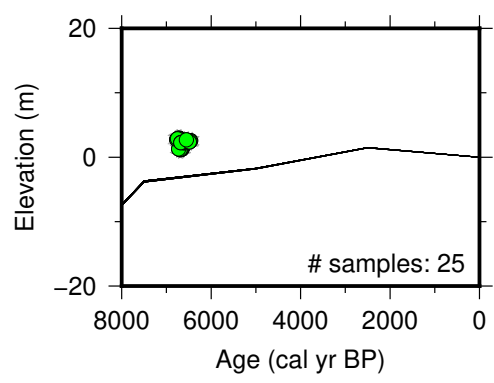
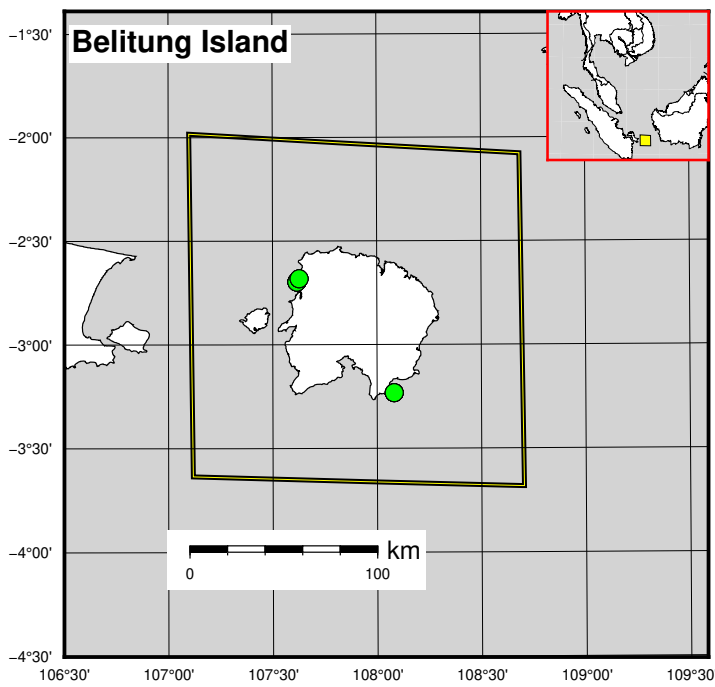


Figure 214: Paleo-sea level and comparison of six models for subregion Sundaland, location Southeast Malay Peninsula.



▲ Marine Limiting ▼ Terrestrial Limiting ● Index Point Reference ice model: 72_73_74_75
 Reference Earth Model: ehgr

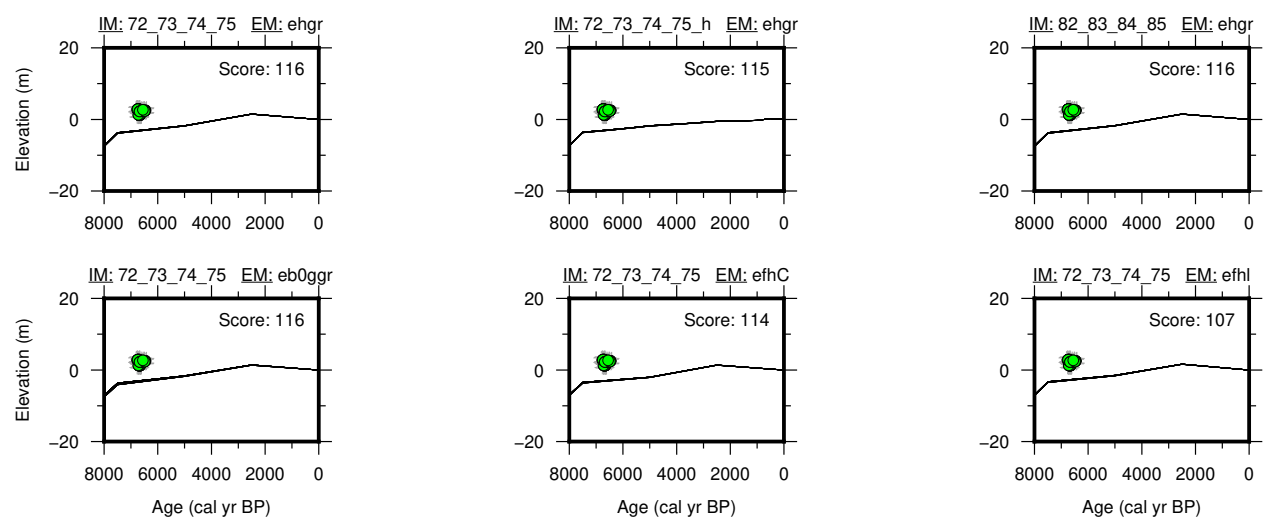


Figure 215: Paleo-sea level and comparison of six models for subregion Sundaland, location Belitung Island.

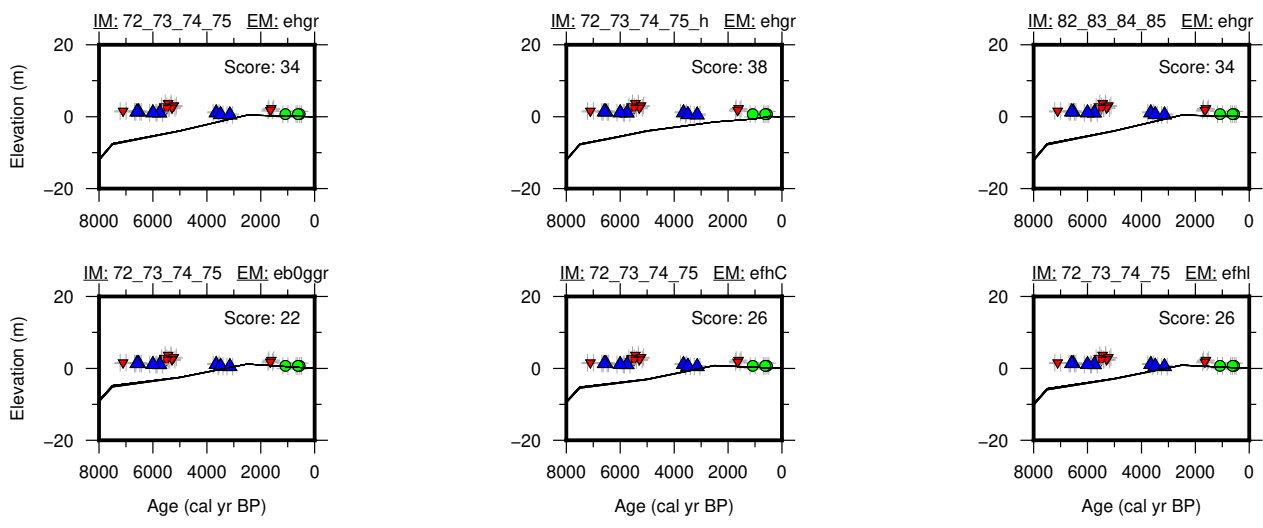
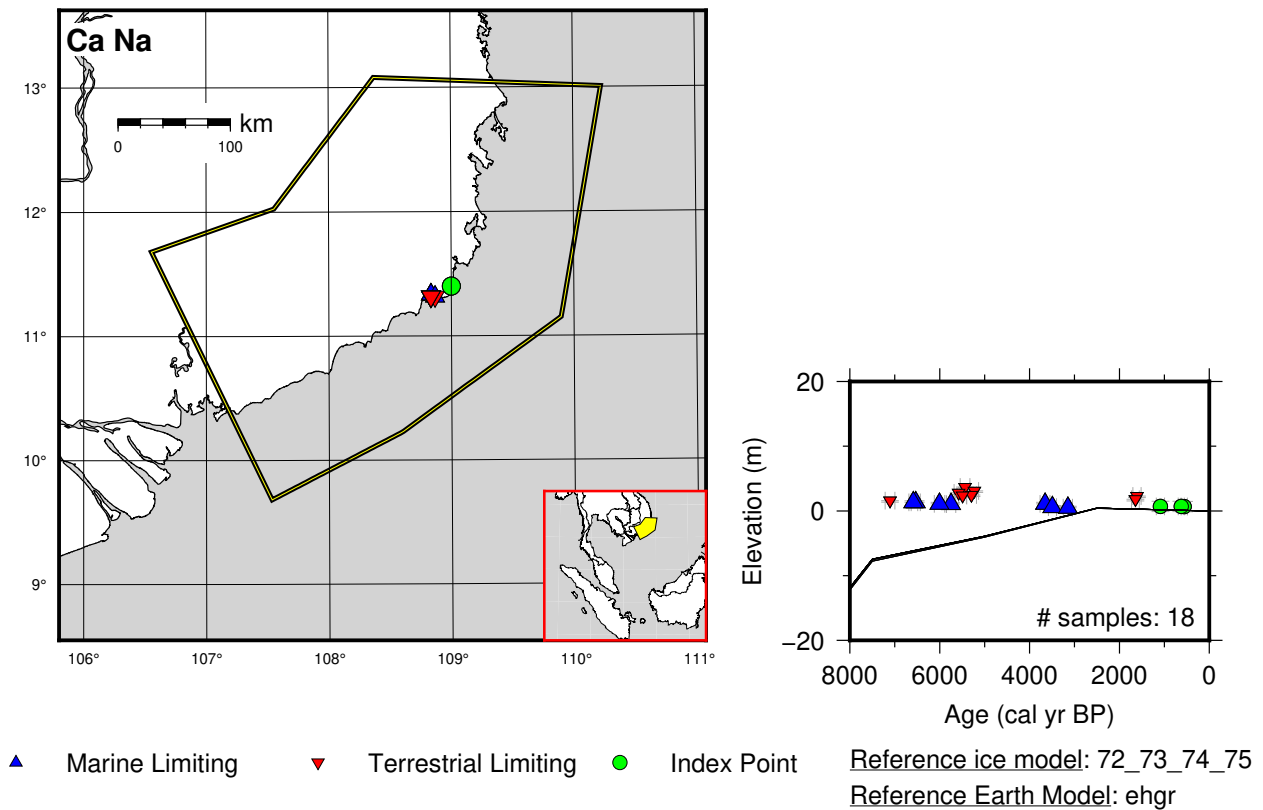


Figure 216: Paleo-sea level and comparison of six models for subregion Sundaland, location Ca Na.

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