**Appendix 2 – Supplementary Tables and Data**

**Early evolution of sexual dimorphism and polygyny in Pinnipedia**

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| **Appendix 2a: Individual specimen measurements** | | | | |  |
| ID numbers for use in morphometric analyses | | | | | |
| Specimen # | Taxon | Sex | ID # (Dorsal) | ID # (Ventral) | Skull Length |
| NMNH 239140 | *Arctocephalus australis* | m | 2392 | 2393 | 255.1 |
| NMNH 504895 | *Arctocephalus australis* | m | 2394 | 2395 | 240.0 |
| NMNH 36664 | *Arctocephalus australis* | m | 2396 | 2397 | 238.6 |
| NMNH 504898 | *Arctocephalus australis* | f | 2398 | 2399 | 174.3 |
| NMNH 504900 | *Arctocephalus australis* | f | 2400 | 2401 | 176.4 |
| NMNH 504896 | *Arctocephalus australis* | f | 2402 | 2403 | 182.6 |
| NMNH 501120 | *Arctocephalus australis* | f | 2404 | 2405 | 212.2 |
| NMNH 501067 | *Arctocephalus australis* | f | 2406 | 2407 | 200.4 |
| NMNH 501118 | *Arctocephalus australis* | f | 2408 | 2409 | 185.0 |
| NMNH 188846 | *Cystophora cristata* | m | 2456 | 2457 | 268.0 |
| NMNH 38233 | *Cystophora cristata* | m | 2458 | 2459 | 265.0 |
| NMNH 188900 | *Cystophora cristata* | m | 2460 | 2461 | 294.2 |
| NMNH 188916 | *Cystophora cristata* | m | 2462 | 2463 | 261.4 |
| NMNH 188915 | *Cystophora cristata* | m | 2464 | 2465 | 280.7 |
| NMNH 188929 | *Cystophora cristata* | m | 2466 | 2467 | 265.3 |
| NMNH 188938 | *Cystophora cristata* | m | 2468 | 2469 | 254.5 |
| NMNH 188947 | *Cystophora cristata* | m | 2470 | 2471 | 268.1 |
| NMNH 241360 | *Cystophora cristata* | m | 2472 | 2473 | 258.2 |
| NMNH 269130 | *Cystophora cristata* | m | 2474 | 2475 | 240.9 |
| NMNH 188871 | *Cystophora cristata* | f | 2476 | 2477 | 224.5 |
| NMNH 188907 | *Cystophora cristata* | f | 2478 | 2479 | 260.5 |
| NMNH 188918 | *Cystophora cristata* | f | 2480 | 2481 | 232.3 |
| NMNH 188930 | *Cystophora cristata* | f | 2482 | 2483 | 238.4 |
| NMNH 188936 | *Cystophora cristata* | f | 2484 | 2485 | 233.0 |
| NMNH 188957 | *Cystophora cristata* | f | 2486 | 2487 | 229.1 |
| NMNH 188958 | *Cystophora cristata* | f | 2488 | 2489 | 225.6 |
| NMNH 188962 | *Cystophora cristata* | f | 2490 | 2491 | 255.3 |
| NMNH 188964 | *Cystophora cristata* | f | 2492 | 2493 | 230.3 |
| NMNH 188970 | *Cystophora cristata* | f | 2494 | 2495 | 235.8 |
| NMNH 16322 | *Callorhinus ursinus* | m | 2352 | 2353 | 235.0 |
| NMNH 11730 | *Callorhinus ursinus* | m | 2354 | 2355 | 236.0 |
| NMNH 15862 | *Callorhinus ursinus* | m | 2356 | 2357 | 245.1 |
| NMNH 11735 | *Callorhinus ursinus* | m | 2358 | 2359 | 230.8 |
| NMNH 11729 | *Callorhinus ursinus* | m | 2360 | 2361 | 236.0 |
| NMNH 11705 | *Callorhinus ursinus* | m | 2362 | 2363 | 247.7 |
| NMNH 11708 | *Callorhinus ursinus* | m | 2364 | 2365 | 246.7 |
| NMNH 11709 | *Callorhinus ursinus* | m | 2366 | 2367 | 255.3 |
| NMNH 11726 | *Callorhinus ursinus* | m | 2368 | 2369 | 253.0 |
| NMNH 11734 | *Callorhinus ursinus* | m | 2370 | 2371 | 250.2 |
| NMNH 286021 | *Callorhinus ursinus* | f | 2372 | 2373 | 190.0 |
| NMNH 286035 | *Callorhinus ursinus* | f | 2374 | 2375 | 190.9 |
| NMNH 286036 | *Callorhinus ursinus* | f | 2376 | 2377 | 191.2 |
| NMNH 286037 | *Callorhinus ursinus* | f | 2378 | 2379 | 189.3 |
| NMNH 286038 | *Callorhinus ursinus* | f | 2380 | 2381 | 189.5 |
| NMNH 286269 | *Callorhinus ursinus* | f | 2382 | 2383 | 184.0 |
| NMNH 286273 | *Callorhinus ursinus* | f | 2384 | 2385 | 183.4 |
| NMNH 286279 | *Callorhinus ursinus* | f | 2386 | 2387 | 191.1 |
| NMNH 286282 | *Callorhinus ursinus* | f | 2388 | 2389 | 191.5 |
| NMNH 286284 | *Callorhinus ursinus* | f | 2390 | 2391 | 182.2 |
| CMN 22187 | *Erignathus barbatus* | m | 2740 | 2741 | 227.1 |
| CMN 22191 | *Erignathus barbatus* | f | 2742 | 2743 | 220.5 |
| CMN 22188 | *Erignathus barbatus* | f | 2744 | 2745 | 207.9 |
| CMN 22192 | *Erignathus barbatus* | f | 2746 | 2747 | 226.9 |
| CMN 21825 | *Erignathus barbatus* | m | 2748 | 2749 | 227.1 |
| CMN 2800 | *Erignathus barbatus* | m | 2750 | 2751 | 215.4 |
| CMN 10369 | *Erignathus barbatus* | m | 2752 | 2753 | 231.1 |
| CMN 10361 | *Erignathus barbatus* | f | 2754 | 2755 | 199.1 |
| CMN 27824 | *Erignathus barbatus* | f | 2756 | 2757 | 239.0 |
| CMN 27826 | *Erignathus barbatus* | m | 2758 | 2767 | 240.0 |
| CMN 27823 | *Erignathus barbatus* | f | 2759 | 2760 | 227.8 |
| CMN 27825 | *Erignathus barbatus* | m | 2761 | 2762 | 228.0 |
| CMN 27121 | *Erignathus barbatus* | f | 2763 | 2764 | 223.4 |
| CMN 27122 | *Erignathus barbatus* | m | 2765 | 2766 | 224.0 |
| NMNH 276354 | *Eumetopias jubatus* | m | 2410 | 2411 | 395.7 |
| NMNH 276031 | *Eumetopias jubatus* | m | 2412 | 2413 | 393.3 |
| NMNH 285509 | *Eumetopias jubatus* | m | 2414 | 2415 | 402.5 |
| NMNH 83887 | *Eumetopias jubatus* | m | 2416 | 2417 | 397.2 |
| NMNH 37913 | *Eumetopias jubatus* | m | 2418 | 2419 | 398.7 |
| NMNH 22072 | *Eumetopias jubatus* | m | 2420 | 2421 | 398.2 |
| NMNH 21303 | *Eumetopias jubatus* | m | 2422 | 2423 | 392.0 |
| NMNH 21108 | *Eumetopias jubatus* | m | 2424 | 2425 | 400.0 |
| NMNH 13217 | *Eumetopias jubatus* | m | 2426 | 2427 | 400.3 |
| NMNH 6906 | *Eumetopias jubatus* | m | 2428 | 2429 | 384.0 |
| NMNH 21309 | *Eumetopias jubatus* | f | 2433 | 2434 | 310.1 |
| NMNH 21299 | *Eumetopias jubatus* | f | 2435 | 2436 | 310.7 |
| NMNH 21302 | *Eumetopias jubatus* | f | 2437 | 2438 | 309.4 |
| NMNH 21537 | *Eumetopias jubatus* | f | 2439 | 2440 | 320.8 |
| NMNH 49438 | *Eumetopias jubatus* | f | 2441 | 2442 | 318.6 |
| NMNH 38228 | *Eumetopias jubatus* | f | 2443 | 2444 | 321.1 |
| NMNH 38220 | *Eumetopias jubatus* | f | 2445 | 2446 | 313.3 |
| NMNH 188982 | *Eumetopias jubatus* | f | 2447 | 2448 | 315.0 |
| NMNH 267995 | *Eumetopias jubatus* | f | 2449 | 2450 | 312.5 |
| NMNH 276209 | *Eumetopias jubatus* | f | 2451 | 2452 | 330.0 |
| NMNH 550367 | *Halichoerus grypus* | m | 2512 | 2513 | 310.3 |
| NMNH 35291 | *Halichoerus grypus* | m | 2514 | 2515 | 295.4 |
| NMNH 20388 | *Halichoerus grypus* | m | 2516 | 2517 | 290.0 |
| NMNH 446405 | *Halichoerus grypus* | m | 2518 | 2519 | 300.1 |
| NMNH 19837 | *Halichoerus grypus* | f | 2520 | 2521 | 220.6 |
| NMNH 8694 | *Halichoerus grypus* | f | 2522 | 2523 | 261.4 |
| NMNH 446406 | *Halichoerus grypus* | f | 2524 | 2525 | 262.3 |
| CMN 16038 | *Halichoerus grypus* | m | 2768 | 2769 | 303.7 |
| CMN 52687 | *Halichoerus grypus* | f | 2770 | 2771 | 252.7 |
| CMN 52686 | *Halichoerus grypus* | f | 2772 | 2773 | 244.5 |
| CMN 52688 | *Halichoerus grypus* | f | 2774 | 2775 | 242.9 |
| CMN 52690 | *Halichoerus grypus* | f | 2776 | 2777 | 268.7 |
| CMN 52693 | *Halichoerus grypus* | f | 2778 | 2779 | 264.8 |
| CMN 52689 | *Halichoerus grypus* | m | 2780 | 2781 | 288.5 |
| CMN 52692 | *Halichoerus grypus* | m | 2782 | 2783 | 291.2 |
| NMNH 550359 | *Hydrurga leptonyx* | f | 2291 | 2293 | 400.0 |
| NMNH 571676 | *Hydrurga leptonyx* | f | 2294 | 2295 | 402.4 |
| NMNH 550360 | *Hydrurga leptonyx* | m | 2296 | 2297 | 392.6 |
| NMNH 277255 | *Hydrurga leptonyx* | f | 2298 | 2299 | 370.2 |
| NMNH 550358 | *Hydrurga leptonyx* | m | 2300 | 2301 | 390.8 |
| NMNH 275208 | *Hydrurga leptonyx* | f | 2302 | 2303 | 401.2 |
| NMNH 264533 | *Hydrurga leptonyx* | f | 2304 | 2305 | 385.1 |
| NMNH 270315 | *Hydrurga leptonyx* | f | 2306 | 2307 | 401.1 |
| NMNH 270326 | *Hydrurga leptonyx* | m | 2308 | 2309 | 378.6 |
| NMNH 275205 | *Hydrurga leptonyx* | f | 2310 | 2311 | 330.4 |
| NMNH 269528 | *Leptonychotes weddelli* | m | 2498 | 2499 | 256.4 |
| NMNH 269529 | *Leptonychotes weddelli* | m | 2500 | 2501 | 271.8 |
| NMNH 395814 | *Leptonychotes weddelli* | m | 2502 | 2503 | 274.2 |
| NMNH 55075 | *Leptonychotes weddelli* | f | 2504 | 2505 | 240.7 |
| NMNH 55076 | *Leptonychotes weddelli* | f | 2506 | 2507 | 250.5 |
| NMNH 269526 | *Leptonychotes weddelli* | f | 2508 | 2509 | 276.1 |
| NMNH 269530 | *Leptonychotes weddelli* | f | 2510 | 2511 | 255.0 |
| NMNH 100371 | *Monachus tropicalus* | f | 2312 | 2313 | 270.0 |
| NMNH 102524 | *Monachus tropicalus* | f | 2314 | 2315 | 280.3 |
| NMNH 102525 | *Monachus tropicalus* | f | 2316 | 2317 | 260.1 |
| NMNH 102528 | *Monachus tropicalus* | f | 2318 | 2319 | 270.6 |
| NMNH 100372 | *Monachus tropicalus* | f | 2320 | 2321 | 250.8 |
| NMNH 100373 | *Monachus tropicalus* | f | 2322 | 2323 | 255.3 |
| NMNH 102526 | *Monachus tropicalus* | f | 2324 | 2325 | 273.2 |
| NMNH 102527 | *Monachus tropicalus* | f | 2326 | 2327 | 240.5 |
| NMNH 102531 | *Monachus tropicalus* | f | 2328 | 2329 | 268.2 |
| NMNH 100366 | *Monachus tropicalus* | f | 2330 | 2331 | 280.1 |
| NMNH 22543 | *Monachus tropicalus* | m | 2332 | 2333 | 278.5 |
| NMNH 49607 | *Monachus tropicalus* | m | 2334 | 2335 | 225.3 |
| NMNH 100354 | *Monachus tropicalus* | m | 2336 | 2337 | 260.7 |
| NMNH 100368 | *Monachus tropicalus* | m | 2338 | 2339 | 248.9 |
| NMNH 100369 | *Monachus tropicalus* | m | 2340 | 2341 | 283.3 |
| NMNH 100363 | *Monachus tropicalus* | m | 2342 | 2343 | 275.5 |
| NMNH 100358 | *Monachus tropicalus* | m | 2344 | 2345 | 270.3 |
| NMNH 102529 | *Monachus tropicalus* | m | 2346 | 2347 | 225.6 |
| NMNH 102523 | *Monachus tropicalus* | m | 2348 | 2349 | 220.2 |
| NMNH 102532 | *Monachus tropicalus* | m | 2350 | 2351 | 261.1 |
| CMN 21121 | *Pusa hispida* | m | 2697 | 2698 | 159.4 |
| CMN 21120 | *Pusa hispida* | f | 2699 | 2700 | 163.0 |
| CMN 21587 | *Pusa hispida* | f | 2701 | 2702 | 197.6 |
| CMN 21584 | *Pusa hispida* | f | 2703 | 2704 | 184.8 |
| CMN 21595 | *Pusa hispida* | m | 2705 | 2706 | 201.2 |
| CMN 21137 | *Pusa hispida* | f | 2707 | 2708 | 183.6 |
| CMN 21577 | *Pusa hispida* | m | 2709 | 2710 | 189.4 |
| CMN 21580 | *Pusa hispida* | m | 2711 | 2712 | 171.3 |
| CMN 45469 | *Pusa hispida* | m | 2713 | 2714 | 175.2 |
| CMN 45456 | *Pusa hispida* | m | 2715 | 2716 | 179.1 |
| CMN 43326 | *Pusa hispida* | f | 2717 | 2718 | 159.1 |
| CMN 32450 | *Pusa hispida* | m | 2719 | 2720 | 191.0 |
| CMN 32414 | *Pusa hispida* | m | 2721 | 2722 | 184.9 |
| CMN 22004 | *Pusa hispida* | f | 2723 | 2724 | 180.7 |
| CMN 39747 | *Pusa hispida* | f | 2725 | 2726 | 173.5 |
| CMN 21697 | *Pusa hispida* | f | 2727 | 2728 | 192.6 |
| CMN 21822 | *Pusa hispida* | f | 2729 | 2730 | 176.5 |
| CMN 22029 | *Pusa hispida* | f | 2731 | 2732 | 184.4 |
| CMN 26413 | *Pusa hispida* | m | 2733 | 2734 | 183.2 |
| CMN 22200 | *Pusa hispida* | m | 2735 | 2736 | 195.0 |
| NMNH 250345 | *Enaliarctos emlongi* | m | FEEDM | FEEVM | 228 |
| NMNH 314290 | *Enaliarctos emlongi* | f | FEEDF | FEEVF | 156.8 |

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| **Appendix 2b: Landmark Descriptions** | |
| Dorsal Landmarks | |
| Landmark # | Description |
| 1 | intermaxillary suture anterior extreme |
| 2 | nasal width lateral |
| 3 | nasal width medial |
| 4 | nasal-frontal midline suture |
| 5 | maxilla-frontal‐nasal suture |
| 6 | interorbital width/jugal-maxilla anterodorsal suture |
| 7 | antorbital process |
| 8 | jugal posterodorsal process |
| 9 | jugal-squamosal anterior suture |
| 10 | parietal-occipital suture, dorsolateral margin |
| 11 | parietal-occipital suture, midline |
| 12 | foramen magnum, dorsal extreme |
| Ventral Landmarks | |
| Landmark # | Description |
| 13 | basion |
| 14 | occipital condyle, posteromedial |
| 15 | occipital condyle, anterolateral |
| 16 | mastoid process, lateral extreme |
| 17 | auditory bulla, posterior extreme |
| 18 | external auditory meatus, lateral extreme |
| 19 | auditory bulla, anteromedial extreme |
| 20 | basispheno-basioccipital suture, lateral |
| 21 | posterior interpalatine suture |
| 22 | maxilla‐palatine suture, midline |
| 23 | maxilla-premaxilla suture, midline |
| 24 | incisive foramen, posterior extreme |
| 25 | incisive foramen, anterior extreme |
| 26 | canine, anterior |
| 27 | canine, posterior |
| 28 | canine, medial |
| 29 | canine, lateral |
| 30 | cheek teeth row, anterior |
| 31 | cheek teeth row, posterior |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| **Appendix 2c(I): Dorsal Landmark Coordinate Data** | | | | | | | | | | | | | |
|  |  | Landmark Coordinate | | | | | | | | | | | |
| Specimen # | Coord. (X/Y) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| AADF2398 | x | 2902 | 2744 | 2770 | 2670 | 2602 | 2544 | 2316 | 2152 | 2112 | 1524 | 1502 | 1264 |
| AADF2398 | y | 1378 | 1282 | 1382 | 1387 | 1341 | 1217 | 1215 | 1003 | 945 | 975 | 1417 | 1409 |
| AADF2400 | x | 3012 | 2862 | 2888 | 2746 | 2680 | 2668 | 2398 | 2288 | 2242 | 1654 | 1606 | 1404 |
| AADF2400 | y | 1375 | 1283 | 1383 | 1389 | 1337 | 1229 | 1205 | 997 | 957 | 999 | 1391 | 1395 |
| AADF2402 | x | 2976 | 2746 | 2764 | 2614 | 2562 | 2524 | 2286 | 2158 | 2102 | 1582 | 1512 | 1264 |
| AADF2402 | y | 1387 | 1303 | 1397 | 1399 | 1357 | 1239 | 1229 | 997 | 939 | 959 | 1383 | 1387 |
| AADF2404 | x | 3214 | 3000 | 3002 | 2804 | 2740 | 2698 | 2442 | 2288 | 2200 | 1536 | 1626 | 1270 |
| AADF2404 | y | 1425 | 1325 | 1441 | 1439 | 1405 | 1269 | 1255 | 997 | 921 | 951 | 1417 | 1387 |
| AADF2406 | x | 2948 | 2780 | 2794 | 2616 | 2578 | 2506 | 2248 | 2072 | 2016 | 1350 | 1386 | 1120 |
| AADF2406 | y | 1369 | 1275 | 1379 | 1383 | 1335 | 1205 | 1207 | 971 | 905 | 985 | 1399 | 1405 |
| AADF2408 | x | 2924 | 2744 | 2754 | 2616 | 2546 | 2490 | 2236 | 2096 | 2064 | 1432 | 1436 | 1184 |
| AADF2408 | y | 1407 | 1299 | 1411 | 1413 | 1347 | 1225 | 1221 | 995 | 949 | 975 | 1405 | 1415 |
| AADM2392 | x | 3276 | 2932 | 2968 | 2736 | 2638 | 2628 | 2240 | 2096 | 2012 | 1188 | 1080 | 912 |
| AADM2392 | y | 1356 | 1252 | 1360 | 1404 | 1308 | 1132 | 1084 | 824 | 720 | 804 | 1460 | 1404 |
| AADM2394 | x | 3300 | 3052 | 3032 | 2776 | 2720 | 2696 | 2396 | 2200 | 2116 | 1380 | 1252 | 1036 |
| AADM2394 | y | 1380 | 1400 | 1240 | 1412 | 1336 | 1148 | 1132 | 876 | 752 | 844 | 1440 | 1368 |
| AADM2396 | x | 3244 | 2924 | 2916 | 2736 | 2696 | 2632 | 2340 | 2148 | 2084 | 1364 | 1252 | 988 |
| AADM2396 | y | 1472 | 1336 | 1472 | 1460 | 1376 | 1216 | 1156 | 880 | 804 | 872 | 1412 | 1456 |
| CCDF2476 | x | 3015 | 2607 | 2664 | 2286 | 2481 | 2568 | 2292 | 2193 | 2121 | 1380 | 1389 | 1158 |
| CCDF2476 | y | 1504 | 1417 | 1501 | 1507 | 1453 | 1178 | 1384 | 919 | 856 | 1012 | 1501 | 1486 |
| CCDF2478 | x | 3027 | 2421 | 2520 | 2046 | 2277 | 2469 | 2067 | 2019 | 1956 | 1236 | 1263 | 921 |
| CCDF2478 | y | 1516 | 1402 | 1528 | 1510 | 1441 | 1133 | 1351 | 781 | 727 | 904 | 1486 | 1471 |
| CCDF2480 | x | 2982 | 2514 | 2562 | 2172 | 2325 | 2523 | 2190 | 2103 | 2055 | 1419 | 1344 | 1059 |
| CCDF2480 | y | 1489 | 1378 | 1501 | 1501 | 1426 | 1088 | 1342 | 844 | 790 | 916 | 1486 | 1474 |
| CCDF2482 | x | 3040 | 2538 | 2596 | 2176 | 2364 | 2516 | 2212 | 2086 | 2018 | 1396 | 1364 | 1064 |
| CCDF2482 | y | 1510 | 1402 | 1512 | 1518 | 1452 | 1116 | 1372 | 894 | 832 | 976 | 1510 | 1502 |
| CCDF2484 | x | 3006 | 2542 | 2590 | 2216 | 2400 | 2512 | 2180 | 2102 | 2036 | 1316 | 1364 | 1070 |
| CCDF2484 | y | 1486 | 1400 | 1506 | 1508 | 1452 | 1098 | 1356 | 862 | 814 | 1006 | 1522 | 1524 |
| CCDF2486 | x | 3026 | 2542 | 2600 | 2176 | 2380 | 2532 | 2170 | 2116 | 2042 | 1390 | 1294 | 1100 |
| CCDF2486 | y | 1522 | 1444 | 1524 | 1538 | 1466 | 1150 | 1366 | 872 | 810 | 982 | 1536 | 1528 |
| CCDF2488 | x | 2980 | 2514 | 2574 | 2258 | 2358 | 2516 | 2160 | 2074 | 2050 | 1418 | 1382 | 1112 |
| CCDF2488 | y | 1496 | 1422 | 1496 | 1516 | 1474 | 1138 | 1392 | 872 | 840 | 1008 | 1522 | 1518 |
| CCDF2490 | x | 3048 | 2500 | 2558 | 2070 | 2300 | 2464 | 2054 | 1954 | 1916 | 1130 | 1188 | 936 |
| CCDF2490 | y | 1512 | 1418 | 1530 | 1530 | 1434 | 1144 | 1362 | 834 | 766 | 980 | 1548 | 1546 |
| CCDF2492 | x | 3064 | 2622 | 2678 | 2316 | 2432 | 2562 | 2234 | 2116 | 2098 | 1400 | 1396 | 1166 |
| CCDF2492 | y | 1530 | 1452 | 1534 | 1538 | 1484 | 1154 | 1408 | 922 | 874 | 1012 | 1520 | 1528 |
| CCDF2494 | x | 3112 | 2580 | 2668 | 2248 | 2402 | 2566 | 2128 | 2092 | 2046 | 1354 | 1390 | 1138 |
| CCDF2494 | y | 1476 | 1398 | 1492 | 1500 | 1446 | 1112 | 1378 | 838 | 798 | 1006 | 1514 | 1512 |
| CCDM2456 | x | 3294 | 2588 | 2728 | 2272 | 2394 | 2568 | 2184 | 2092 | 2002 | 1228 | 1276 | 984 |
| CCDM2456 | y | 1502 | 1336 | 1524 | 1536 | 1430 | 940 | 1324 | 704 | 628 | 1000 | 1564 | 1592 |
| CCDM2458 | x | 3214 | 2486 | 2614 | 2076 | 2262 | 2486 | 1988 | 1916 | 1854 | 1154 | 1146 | 942 |
| CCDM2458 | y | 1494 | 1342 | 1512 | 1512 | 1428 | 1016 | 1316 | 734 | 656 | 996 | 1532 | 1536 |
| CCDM2460 | x | 3381 | 2589 | 2718 | 2004 | 2253 | 2504 | 1899 | 1965 | 1899 | 1050 | 1095 | 780 |
| CCDM2460 | y | 1474 | 1279 | 1501 | 1525 | 1420 | 988 | 1309 | 667 | 598 | 976 | 1549 | 1561 |
| CCDM2462 | x | 3300 | 2694 | 2796 | 2223 | 2508 | 2578 | 2220 | 2088 | 2043 | 1395 | 1350 | 1122 |
| CCDM2462 | y | 1381 | 1216 | 1384 | 1384 | 1312 | 898 | 1210 | 682 | 619 | 877 | 1462 | 1480 |
| CCDM2464 | x | 3402 | 2739 | 2898 | 2277 | 2520 | 2676 | 2253 | 2190 | 2160 | 1317 | 1323 | 1059 |
| CCDM2464 | y | 1435 | 1291 | 1438 | 1426 | 1357 | 982 | 1243 | 577 | 514 | 865 | 1426 | 1435 |
| CCDM2466 | x | 3267 | 2622 | 2736 | 2175 | 2334 | 2582 | 2085 | 2118 | 2073 | 1248 | 1239 | 1086 |
| CCDM2466 | y | 1492 | 1330 | 1486 | 1495 | 1420 | 1004 | 1285 | 700 | 637 | 958 | 1489 | 1489 |
| CCDM2468 | x | 3192 | 2637 | 2697 | 2241 | 2472 | 2589 | 2208 | 2124 | 2127 | 1248 | 1347 | 1062 |
| CCDM2468 | y | 1405 | 1270 | 1399 | 1393 | 1321 | 1001 | 1240 | 727 | 655 | 877 | 1387 | 1399 |
| CCDM2470 | x | 3240 | 2634 | 2742 | 2349 | 2499 | 2610 | 2259 | 2145 | 2118 | 1287 | 1338 | 1035 |
| CCDM2470 | y | 1459 | 1333 | 1450 | 1465 | 1402 | 1013 | 1294 | 754 | 682 | 931 | 1489 | 1492 |
| CCDM2472 | x | 3273 | 2655 | 2778 | 2214 | 2478 | 2644 | 2307 | 2184 | 2151 | 1398 | 1389 | 1107 |
| CCDM2472 | y | 1351 | 1249 | 1372 | 1357 | 1294 | 986 | 1201 | 730 | 658 | 802 | 1372 | 1375 |
| CCDM2474 | x | 3147 | 2634 | 2721 | 2148 | 2430 | 2580 | 2217 | 2130 | 2109 | 1431 | 1377 | 1152 |
| CCDM2474 | y | 1447 | 1378 | 1483 | 1510 | 1438 | 1025 | 1360 | 754 | 685 | 916 | 1504 | 1492 |
| CUDF2372 | x | 3044 | 2930 | 2934 | 2766 | 2696 | 2632 | 2396 | 2214 | 2162 | 1488 | 1502 | 1202 |
| CUDF2372 | y | 1398 | 1298 | 1402 | 1398 | 1340 | 1202 | 1216 | 924 | 874 | 918 | 1376 | 1372 |
| CUDF2374 | x | 3076 | 2910 | 2902 | 2768 | 2692 | 2646 | 2392 | 2224 | 2182 | 1522 | 1490 | 1258 |
| CUDF2374 | y | 1360 | 1244 | 1350 | 1360 | 1306 | 1152 | 1148 | 912 | 846 | 890 | 1368 | 1358 |
| CUDF2376 | x | 3058 | 2938 | 2932 | 2732 | 2752 | 2640 | 2370 | 2188 | 2158 | 1428 | 1414 | 1208 |
| CUDF2376 | y | 1384 | 1282 | 1386 | 1392 | 1342 | 1204 | 1194 | 938 | 880 | 934 | 1382 | 1378 |
| CUDF2378 | x | 2970 | 2838 | 2858 | 2626 | 2532 | 2548 | 2236 | 2126 | 2090 | 1406 | 1378 | 1174 |
| CUDF2378 | y | 1406 | 1312 | 1404 | 1406 | 1330 | 1206 | 1142 | 956 | 886 | 962 | 1382 | 1380 |
| CUDF2380 | x | 2986 | 2824 | 2820 | 2626 | 2582 | 2540 | 2286 | 2142 | 2088 | 1458 | 1346 | 1164 |
| CUDF2380 | y | 1384 | 1276 | 1382 | 1386 | 1334 | 1184 | 1188 | 962 | 890 | 928 | 1382 | 1390 |
| CUDF2382 | x | 2978 | 2820 | 2842 | 2652 | 2584 | 2538 | 2300 | 2114 | 2078 | 1438 | 1424 | 1190 |
| CUDF2382 | y | 1368 | 1264 | 1372 | 1370 | 1312 | 1178 | 1192 | 902 | 858 | 902 | 1348 | 1368 |
| CUDF2384 | x | 2974 | 2844 | 2838 | 2668 | 2638 | 2574 | 2306 | 2174 | 2124 | 1480 | 1444 | 1242 |
| CUDF2384 | y | 1366 | 1272 | 1364 | 1372 | 1326 | 1198 | 1188 | 900 | 852 | 914 | 1382 | 1394 |
| CUDF2386 | x | 3016 | 2880 | 2874 | 2670 | 2636 | 2634 | 2364 | 2238 | 2214 | 1466 | 1468 | 1216 |
| CUDF2386 | y | 1392 | 1296 | 1396 | 1402 | 1350 | 1200 | 1164 | 926 | 866 | 910 | 1358 | 1362 |
| CUDF2388 | x | 3042 | 2924 | 2920 | 2698 | 2646 | 2628 | 2328 | 2200 | 2178 | 1524 | 1500 | 1256 |
| CUDF2388 | y | 1398 | 1316 | 1422 | 1420 | 1376 | 1222 | 1230 | 944 | 886 | 928 | 1422 | 1414 |
| CUDF2390 | x | 3044 | 2910 | 2908 | 2740 | 2690 | 2674 | 2466 | 2270 | 2246 | 1624 | 1626 | 1328 |
| CUDF2390 | y | 1454 | 1354 | 1446 | 1440 | 1402 | 1246 | 1238 | 1020 | 944 | 966 | 1418 | 1420 |
| CUDM2352 | x | 3238 | 3112 | 3147 | 2812 | 2803 | 2730 | 2375 | 2174 | 2094 | 1218 | 1210 | 1006 |
| CUDM2352 | y | 1374 | 1228 | 1376 | 1393 | 1312 | 1101 | 1125 | 916 | 812 | 856 | 1416 | 1412 |
| CUDM2354 | x | 3312 | 3156 | 3174 | 2961 | 2928 | 2826 | 2502 | 2253 | 2208 | 1347 | 1299 | 1065 |
| CUDM2354 | y | 1387 | 1243 | 1393 | 1396 | 1324 | 1096 | 1075 | 865 | 775 | 856 | 1426 | 1417 |
| CUDM2356 | x | 3378 | 3165 | 3147 | 2925 | 2856 | 2787 | 2487 | 2226 | 2181 | 1314 | 1188 | 996 |
| CUDM2356 | y | 1404 | 1278 | 1413 | 1425 | 1338 | 1140 | 1131 | 900 | 810 | 798 | 1428 | 1419 |
| CUDM2358 | x | 3276 | 3180 | 3166 | 2956 | 2926 | 2796 | 2472 | 2222 | 2146 | 1412 | 1266 | 1042 |
| CUDM2358 | y | 1440 | 1292 | 1418 | 1414 | 1330 | 1134 | 1146 | 894 | 792 | 856 | 1422 | 1438 |
| CUDM2360 | x | 3240 | 3150 | 3170 | 2968 | 2876 | 2796 | 2408 | 2206 | 2158 | 1282 | 1194 | 1022 |
| CUDM2360 | y | 1437 | 1303 | 1439 | 1429 | 1365 | 1127 | 1135 | 925 | 831 | 939 | 1449 | 1457 |
| CUDM2362 | x | 3314 | 3168 | 3128 | 2928 | 2878 | 2818 | 2502 | 2266 | 2212 | 1384 | 1302 | 1046 |
| CUDM2362 | y | 1444 | 1312 | 1446 | 1444 | 1362 | 1132 | 1140 | 918 | 838 | 838 | 1410 | 1392 |
| CUDM2364 | x | 3240 | 3126 | 3102 | 2900 | 2778 | 2746 | 2368 | 2188 | 2132 | 1236 | 1226 | 896 |
| CUDM2364 | y | 1354 | 1220 | 1378 | 1372 | 1286 | 1084 | 1078 | 808 | 744 | 756 | 1400 | 1392 |
| CUDM2366 | x | 3362 | 3192 | 3196 | 2966 | 2904 | 2844 | 2532 | 2314 | 2204 | 1330 | 1268 | 970 |
| CUDM2366 | y | 1428 | 1274 | 1418 | 1412 | 1300 | 1106 | 1114 | 886 | 772 | 804 | 1402 | 1394 |
| CUDM2368 | x | 3354 | 3248 | 3246 | 2886 | 2884 | 2818 | 2500 | 2252 | 2166 | 1240 | 1110 | 980 |
| CUDM2368 | y | 1428 | 1250 | 1422 | 1422 | 1302 | 1076 | 1098 | 854 | 764 | 794 | 1418 | 1416 |
| CUDM2370 | x | 3352 | 3226 | 3262 | 2990 | 2896 | 2792 | 2452 | 2204 | 2136 | 1224 | 1136 | 940 |
| CUDM2370 | y | 1458 | 1294 | 1444 | 1454 | 1370 | 1152 | 1192 | 982 | 870 | 952 | 1546 | 1536 |
| EBDF2742 | x | 3381 | 3042 | 3018 | 2394 | 2649 | 2565 | 1872 | 2076 | 2049 | 870 | 906 | 645 |
| EBDF2742 | y | 1551 | 1449 | 1608 | 1635 | 1536 | 1095 | 1494 | 918 | 852 | 1026 | 1686 | 1677 |
| EBDF2744 | x | 3258 | 2958 | 2928 | 2316 | 2553 | 2478 | 1917 | 1980 | 1974 | 1002 | 990 | 717 |
| EBDF2744 | y | 1446 | 1326 | 1443 | 1458 | 1368 | 996 | 1332 | 870 | 789 | 828 | 1449 | 1464 |
| EBDF2746 | x | 3363 | 3012 | 2931 | 2313 | 2550 | 2451 | 1791 | 1926 | 1917 | 936 | 849 | 606 |
| EBDF2746 | y | 1537 | 1426 | 1555 | 1594 | 1465 | 1030 | 1378 | 862 | 814 | 928 | 1636 | 1657 |
| EBDF2754 | x | 3180 | 2838 | 2805 | 2301 | 2502 | 2460 | 1875 | 1977 | 1980 | 1089 | 897 | 681 |
| EBDF2754 | y | 1462 | 1348 | 1444 | 1447 | 1375 | 1015 | 1255 | 853 | 787 | 784 | 1447 | 1450 |
| EBDF2756 | x | 3588 | 3264 | 3246 | 2580 | 2718 | 2676 | 2025 | 2115 | 2124 | 1029 | 972 | 729 |
| EBDF2756 | y | 1425 | 1287 | 1428 | 1461 | 1362 | 912 | 1257 | 798 | 723 | 819 | 1500 | 1512 |
| EBDF2759 | x | 3396 | 3084 | 3039 | 2373 | 2613 | 2610 | 1842 | 2049 | 2046 | 999 | 882 | 648 |
| EBDF2759 | y | 1488 | 1362 | 1500 | 1503 | 1410 | 987 | 1221 | 720 | 633 | 774 | 1488 | 1512 |
| EBDF2763 | x | 3447 | 3108 | 3009 | 2493 | 2664 | 2616 | 1938 | 2088 | 2079 | 1038 | 993 | 771 |
| EBDF2763 | y | 1470 | 1323 | 1476 | 1494 | 1368 | 954 | 1293 | 789 | 708 | 852 | 1470 | 1494 |
| EBDM2740 | x | 3525 | 3267 | 3222 | 2682 | 2904 | 2754 | 2061 | 2226 | 2211 | 1200 | 1107 | 831 |
| EBDM2740 | y | 1482 | 1338 | 1473 | 1455 | 1386 | 987 | 1293 | 789 | 732 | 795 | 1503 | 1512 |
| EBDM2748 | x | 3381 | 3054 | 2937 | 2352 | 2616 | 2562 | 1902 | 2064 | 2046 | 1041 | 849 | 624 |
| EBDM2748 | y | 1557 | 1398 | 1533 | 1521 | 1434 | 1050 | 1278 | 849 | 786 | 804 | 1473 | 1464 |
| EBDM2750 | x | 3300 | 2940 | 2889 | 2238 | 2532 | 2475 | 1686 | 1911 | 1893 | 954 | 780 | 597 |
| EBDM2750 | y | 1632 | 1467 | 1638 | 1623 | 1506 | 1032 | 1365 | 867 | 801 | 942 | 1626 | 1620 |
| EBDM2752 | x | 3327 | 2931 | 2874 | 2271 | 2508 | 2454 | 1602 | 1836 | 1827 | 723 | 717 | 507 |
| EBDM2752 | y | 1530 | 1392 | 1524 | 1545 | 1428 | 978 | 1416 | 831 | 780 | 975 | 1620 | 1620 |
| EBDM2758 | x | 3480 | 3090 | 3066 | 2334 | 2565 | 2559 | 1797 | 2001 | 2007 | 807 | 663 | 483 |
| EBDM2758 | y | 1527 | 1353 | 1515 | 1521 | 1395 | 927 | 1260 | 789 | 708 | 837 | 1551 | 1563 |
| EBDM2761 | x | 3453 | 3078 | 2997 | 2322 | 2631 | 2592 | 1956 | 2043 | 2037 | 1068 | 870 | 672 |
| EBDM2761 | y | 1551 | 1422 | 1554 | 1563 | 1473 | 978 | 1380 | 828 | 735 | 795 | 1554 | 1548 |
| EBDM2765 | x | 3381 | 3003 | 2880 | 2283 | 2514 | 2514 | 1647 | 1926 | 1893 | 972 | 837 | 606 |
| EBDM2765 | y | 1506 | 1338 | 1485 | 1479 | 1374 | 969 | 1305 | 765 | 669 | 801 | 1500 | 1527 |
| EJDF2433 | x | 3651 | 3285 | 3267 | 2934 | 2814 | 2859 | 2562 | 2280 | 2091 | 885 | 879 | 645 |
| EJDF2433 | y | 1480 | 1315 | 1522 | 1555 | 1420 | 1015 | 958 | 727 | 640 | 823 | 1531 | 1507 |
| EJDF2435 | x | 3370 | 3036 | 3030 | 2800 | 2678 | 2666 | 2434 | 2180 | 2100 | 1246 | 1214 | 964 |
| EJDF2435 | y | 1375 | 1259 | 1387 | 1409 | 1321 | 1077 | 1083 | 853 | 805 | 885 | 1419 | 1425 |
| EJDF2437 | x | 3519 | 3216 | 3228 | 2988 | 2886 | 2832 | 2574 | 2274 | 2205 | 1347 | 1350 | 1086 |
| EJDF2437 | y | 1426 | 1303 | 1435 | 1438 | 1342 | 1108 | 1117 | 886 | 847 | 952 | 1447 | 1465 |
| EJDF2439 | x | 3501 | 3174 | 3204 | 2988 | 2904 | 2829 | 2562 | 2277 | 2223 | 1299 | 1284 | 1044 |
| EJDF2439 | y | 1477 | 1342 | 1471 | 1486 | 1399 | 1171 | 1114 | 949 | 904 | 1009 | 1537 | 1567 |
| EJDF2441 | x | 3636 | 3318 | 3318 | 3051 | 2985 | 2943 | 2712 | 2385 | 2289 | 1290 | 1293 | 1131 |
| EJDF2441 | y | 1447 | 1327 | 1483 | 1504 | 1405 | 1141 | 1081 | 850 | 784 | 1042 | 1534 | 1534 |
| EJDF2443 | x | 3367 | 3049 | 3070 | 2854 | 2667 | 2665 | 2427 | 2133 | 2020 | 1024 | 1018 | 889 |
| EJDF2443 | y | 1518 | 1392 | 1509 | 1503 | 1417 | 1183 | 1127 | 867 | 822 | 960 | 1518 | 1497 |
| EJDF2445 | x | 3493 | 3148 | 3154 | 2917 | 2863 | 2794 | 2653 | 2275 | 2170 | 1153 | 1105 | 934 |
| EJDF2445 | y | 1446 | 1335 | 1485 | 1494 | 1425 | 1146 | 1116 | 834 | 792 | 924 | 1494 | 1479 |
| EJDF2447 | x | 3493 | 3163 | 3175 | 2968 | 2845 | 2776 | 2551 | 2218 | 2122 | 1228 | 1225 | 988 |
| EJDF2447 | y | 1525 | 1372 | 1519 | 1516 | 1420 | 1192 | 1132 | 943 | 898 | 1042 | 1519 | 1540 |
| EJDF2449 | x | 3454 | 3154 | 3163 | 2929 | 2839 | 2809 | 2569 | 2236 | 2098 | 1207 | 1222 | 1015 |
| EJDF2449 | y | 1326 | 1257 | 1377 | 1392 | 1320 | 1032 | 1023 | 783 | 720 | 891 | 1446 | 1386 |
| EJDF2451 | x | 3403 | 3064 | 3079 | 2857 | 2755 | 2728 | 2536 | 2170 | 2047 | 1066 | 1132 | 832 |
| EJDF2451 | y | 1488 | 1359 | 1482 | 1488 | 1395 | 1149 | 1080 | 870 | 822 | 945 | 1437 | 1440 |
| EJDM2410 | x | 3828 | 3477 | 3492 | 3207 | 3042 | 3060 | 2643 | 2418 | 2226 | 840 | 969 | 744 |
| EJDM2410 | y | 1426 | 1219 | 1429 | 1438 | 1264 | 916 | 835 | 643 | 556 | 796 | 1498 | 1492 |
| EJDM2412 | x | 3678 | 3336 | 3327 | 2988 | 2994 | 2904 | 2640 | 2253 | 2085 | 735 | 759 | 477 |
| EJDM2412 | y | 1546 | 1318 | 1546 | 1534 | 1390 | 985 | 877 | 691 | 598 | 709 | 1435 | 1438 |
| EJDM2414 | x | 3630 | 3282 | 3237 | 2946 | 2922 | 2925 | 2667 | 2214 | 2061 | 762 | 684 | 471 |
| EJDM2414 | y | 1531 | 1321 | 1525 | 1540 | 1393 | 1015 | 922 | 703 | 640 | 793 | 1549 | 1531 |
| EJDM2416 | x | 3702 | 3282 | 3264 | 3000 | 2916 | 2913 | 2601 | 2322 | 2121 | 783 | 924 | 633 |
| EJDM2416 | y | 1573 | 1387 | 1585 | 1582 | 1420 | 1060 | 928 | 769 | 661 | 868 | 1579 | 1561 |
| EJDM2418 | x | 3714 | 3261 | 3231 | 2940 | 2904 | 2883 | 2517 | 2265 | 2067 | 822 | 846 | 597 |
| EJDM2418 | y | 1504 | 1345 | 1549 | 1558 | 1420 | 997 | 943 | 724 | 634 | 856 | 1612 | 1597 |
| EJDM2420 | x | 3717 | 3261 | 3243 | 2949 | 2916 | 2871 | 2547 | 2238 | 2055 | 846 | 831 | 609 |
| EJDM2420 | y | 1509 | 1356 | 1557 | 1563 | 1419 | 1008 | 939 | 717 | 642 | 855 | 1623 | 1593 |
| EJDM2422 | x | 3729 | 3438 | 3372 | 3054 | 2991 | 2994 | 2751 | 2358 | 2196 | 795 | 723 | 600 |
| EJDM2422 | y | 1470 | 1290 | 1485 | 1467 | 1341 | 954 | 825 | 633 | 552 | 768 | 1476 | 1473 |
| EJDM2424 | x | 3678 | 3315 | 3303 | 3051 | 3000 | 2910 | 2610 | 2265 | 2112 | 981 | 912 | 612 |
| EJDM2424 | y | 1446 | 1260 | 1464 | 1464 | 1329 | 996 | 882 | 690 | 594 | 855 | 1548 | 1560 |
| EJDM2426 | x | 3771 | 3378 | 3336 | 3027 | 2910 | 2961 | 2640 | 2286 | 2166 | 882 | 804 | 597 |
| EJDM2426 | y | 1435 | 1249 | 1429 | 1465 | 1327 | 946 | 925 | 616 | 568 | 796 | 1423 | 1429 |
| EJDM2428 | x | 3771 | 3357 | 3348 | 3027 | 2946 | 2919 | 2589 | 2280 | 2079 | 741 | 624 | 525 |
| EJDM2428 | y | 1459 | 1237 | 1462 | 1465 | 1291 | 964 | 892 | 676 | 583 | 847 | 1540 | 1534 |
| HGDF2520 | x | 3220 | 2876 | 2882 | 2444 | 2636 | 2544 | 2190 | 2302 | 2146 | 1362 | 1436 | 1078 |
| HGDF2520 | y | 1546 | 1442 | 1552 | 1540 | 1456 | 1118 | 1400 | 988 | 934 | 998 | 1532 | 1518 |
| HGDF2522 | x | 3269 | 2771 | 2813 | 2174 | 2441 | 2333 | 1820 | 1868 | 1895 | 1004 | 1058 | 722 |
| HGDF2522 | y | 1370 | 1178 | 1316 | 1316 | 1202 | 848 | 1169 | 692 | 623 | 791 | 1325 | 1328 |
| HGDF2524 | x | 3547 | 3076 | 3022 | 2527 | 2773 | 2653 | 2221 | 2203 | 2173 | 1297 | 1357 | 1042 |
| HGDF2524 | y | 1520 | 1445 | 1556 | 1565 | 1451 | 1016 | 1421 | 902 | 857 | 1001 | 1562 | 1574 |
| HGDF2770 | x | 3306 | 3015 | 2994 | 2487 | 2718 | 2598 | 2331 | 2229 | 2166 | 1335 | 1332 | 1137 |
| HGDF2770 | y | 1482 | 1359 | 1458 | 1467 | 1362 | 1002 | 1338 | 894 | 837 | 1014 | 1482 | 1479 |
| HGDF2772 | x | 3290 | 3034 | 3074 | 2578 | 2804 | 2620 | 2316 | 2252 | 2244 | 1354 | 1420 | 1192 |
| HGDF2772 | y | 1449 | 1323 | 1443 | 1451 | 1337 | 1021 | 1323 | 881 | 835 | 983 | 1451 | 1449 |
| HGDF2774 | x | 3158 | 2850 | 2804 | 2362 | 2574 | 2452 | 2128 | 2078 | 2032 | 1214 | 1304 | 1048 |
| HGDF2774 | y | 1508 | 1388 | 1508 | 1498 | 1386 | 1034 | 1356 | 932 | 850 | 1112 | 1520 | 1542 |
| HGDF2776 | x | 3302 | 2854 | 2850 | 2304 | 2576 | 2472 | 2166 | 2058 | 1980 | 1154 | 1188 | 934 |
| HGDF2776 | y | 1508 | 1376 | 1496 | 1512 | 1402 | 1054 | 1370 | 896 | 812 | 1044 | 1540 | 1542 |
| HGDF2778 | x | 3354 | 3024 | 3080 | 2556 | 2746 | 2596 | 2260 | 2184 | 2136 | 1322 | 1356 | 1090 |
| HGDF2778 | y | 1415 | 1339 | 1455 | 1447 | 1345 | 977 | 1305 | 829 | 769 | 941 | 1461 | 1469 |
| HGDM2512 | x | 3726 | 2991 | 3105 | 2274 | 2664 | 2610 | 2178 | 2091 | 1998 | 840 | 1023 | 732 |
| HGDM2512 | y | 1572 | 1350 | 1569 | 1572 | 1416 | 939 | 1389 | 816 | 741 | 1008 | 1554 | 1533 |
| HGDM2514 | x | 3423 | 2928 | 2967 | 2181 | 2514 | 2463 | 1989 | 2037 | 1938 | 873 | 903 | 687 |
| HGDM2514 | y | 1527 | 1386 | 1545 | 1539 | 1413 | 906 | 1332 | 741 | 642 | 963 | 1521 | 1515 |
| HGDM2516 | x | 3471 | 2922 | 2946 | 2220 | 2553 | 2550 | 1773 | 1812 | 1836 | 741 | 795 | 510 |
| HGDM2516 | y | 1590 | 1452 | 1644 | 1617 | 1500 | 903 | 1419 | 750 | 603 | 987 | 1563 | 1560 |
| HGDM2518 | x | 3507 | 2994 | 3039 | 2328 | 2643 | 2490 | 2094 | 1983 | 1920 | 876 | 999 | 657 |
| HGDM2518 | y | 1512 | 1350 | 1569 | 1545 | 1410 | 858 | 1332 | 672 | 585 | 921 | 1518 | 1518 |
| HGDM2768 | x | 3537 | 3030 | 3090 | 2316 | 2598 | 2601 | 2187 | 2088 | 2016 | 999 | 1068 | 885 |
| HGDM2768 | y | 1461 | 1257 | 1473 | 1491 | 1338 | 849 | 1284 | 657 | 576 | 1032 | 1509 | 1506 |
| HGDM2780 | x | 3519 | 3213 | 3228 | 2574 | 2796 | 2706 | 2409 | 2220 | 2169 | 1296 | 1314 | 1080 |
| HGDM2780 | y | 1426 | 1342 | 1480 | 1492 | 1372 | 958 | 1348 | 811 | 742 | 1006 | 1540 | 1528 |
| HGDM2782 | x | 3390 | 2952 | 2982 | 2388 | 2604 | 2475 | 2256 | 2028 | 1971 | 1116 | 1101 | 864 |
| HGDM2782 | y | 1449 | 1299 | 1446 | 1452 | 1335 | 951 | 1311 | 798 | 726 | 894 | 1449 | 1455 |
| HLDF2291 | x | 3912 | 3363 | 3330 | 2427 | 3063 | 2886 | 2250 | 2202 | 2139 | 894 | 1041 | 765 |
| HLDF2291 | y | 1461 | 1296 | 1419 | 1419 | 1251 | 996 | 1239 | 699 | 636 | 816 | 1380 | 1380 |
| HLDF2294 | x | 3882 | 3315 | 3294 | 2535 | 2970 | 2838 | 2205 | 2190 | 2103 | 744 | 882 | 654 |
| HLDF2294 | y | 1455 | 1284 | 1416 | 1401 | 1257 | 1056 | 1242 | 735 | 672 | 870 | 1425 | 1416 |
| HLDF2298 | x | 3783 | 3306 | 3282 | 2538 | 3003 | 2814 | 2346 | 2250 | 2043 | 903 | 1005 | 783 |
| HLDF2298 | y | 1368 | 1269 | 1383 | 1407 | 1272 | 1029 | 1161 | 825 | 711 | 852 | 1395 | 1377 |
| HLDF2302 | x | 3873 | 3303 | 3306 | 2487 | 2988 | 2844 | 2202 | 2220 | 2109 | 837 | 999 | 705 |
| HLDF2302 | y | 1338 | 1275 | 1392 | 1413 | 1263 | 1065 | 1239 | 735 | 654 | 933 | 1401 | 1419 |
| HLDF2304 | x | 3762 | 3318 | 3297 | 2448 | 2976 | 2802 | 2193 | 2127 | 2052 | 786 | 897 | 717 |
| HLDF2304 | y | 1434 | 1287 | 1410 | 1419 | 1272 | 1089 | 1257 | 789 | 699 | 966 | 1455 | 1461 |
| HLDF2306 | x | 3807 | 3348 | 3393 | 2364 | 3027 | 2820 | 2223 | 2130 | 2034 | 864 | 1011 | 675 |
| HLDF2306 | y | 1500 | 1311 | 1443 | 1428 | 1278 | 1059 | 1248 | 768 | 669 | 894 | 1401 | 1407 |
| HLDF2310 | x | 3489 | 3060 | 3054 | 2427 | 2742 | 2706 | 2265 | 2187 | 2151 | 1119 | 1248 | 957 |
| HLDF2310 | y | 1449 | 1353 | 1434 | 1416 | 1335 | 1122 | 1257 | 777 | 747 | 903 | 1395 | 1410 |
| HLDM2296 | x | 3840 | 3276 | 3261 | 2514 | 2982 | 2835 | 2505 | 2226 | 2154 | 966 | 1128 | 813 |
| HLDM2296 | y | 1416 | 1299 | 1413 | 1425 | 1293 | 1062 | 1266 | 774 | 714 | 903 | 1407 | 1410 |
| HLDM2300 | x | 3756 | 3210 | 3222 | 2418 | 2901 | 2778 | 2211 | 2142 | 2031 | 855 | 1035 | 747 |
| HLDM2300 | y | 1428 | 1314 | 1425 | 1413 | 1293 | 1077 | 1272 | 756 | 693 | 978 | 1470 | 1476 |
| HLDM2308 | x | 3816 | 3321 | 3312 | 2577 | 3042 | 2835 | 2385 | 2226 | 2166 | 960 | 1137 | 882 |
| HLDM2308 | y | 1356 | 1293 | 1404 | 1413 | 1254 | 1029 | 1233 | 720 | 648 | 906 | 1419 | 1416 |
| LWDF2504 | x | 3132 | 2878 | 2844 | 2440 | 2702 | 2728 | 2410 | 2302 | 2238 | 1422 | 1426 | 1174 |
| LWDF2504 | y | 1512 | 1418 | 1494 | 1492 | 1428 | 1254 | 1374 | 872 | 832 | 926 | 1456 | 1450 |
| LWDF2506 | x | 3014 | 2726 | 2704 | 2308 | 2560 | 2538 | 2268 | 2070 | 2050 | 1236 | 1222 | 970 |
| LWDF2506 | y | 1462 | 1408 | 1492 | 1500 | 1420 | 1190 | 1384 | 906 | 872 | 976 | 1516 | 1524 |
| LWDF2508 | x | 3214 | 2908 | 2864 | 2374 | 2744 | 2688 | 2386 | 2114 | 2102 | 1150 | 1168 | 954 |
| LWDF2508 | y | 1478 | 1408 | 1486 | 1472 | 1406 | 1170 | 1352 | 870 | 800 | 908 | 1448 | 1442 |
| LWDF2510 | x | 3084 | 2770 | 2742 | 2286 | 2626 | 2622 | 2314 | 2150 | 2124 | 1204 | 1272 | 1014 |
| LWDF2510 | y | 1504 | 1426 | 1498 | 1490 | 1428 | 1202 | 1354 | 872 | 812 | 940 | 1444 | 1434 |
| LWDM2498 | x | 3284 | 3008 | 2972 | 2504 | 2830 | 2808 | 2544 | 2334 | 2316 | 1400 | 1350 | 1164 |
| LWDM2498 | y | 1482 | 1410 | 1480 | 1476 | 1412 | 1168 | 1362 | 844 | 786 | 888 | 1462 | 1456 |
| LWDM2500 | x | 3180 | 2868 | 2852 | 2372 | 2718 | 2692 | 2370 | 2120 | 2082 | 1146 | 1200 | 918 |
| LWDM2500 | y | 1534 | 1460 | 1546 | 1552 | 1468 | 1224 | 1396 | 864 | 810 | 954 | 1538 | 1544 |
| LWDM2502 | x | 3284 | 2970 | 2944 | 2582 | 2796 | 2792 | 2452 | 2292 | 2274 | 1318 | 1296 | 1018 |
| LWDM2502 | y | 1612 | 1512 | 1598 | 1600 | 1522 | 1274 | 1482 | 950 | 894 | 1010 | 1612 | 1602 |
| MTDF2312 | x | 3250 | 2914 | 2912 | 2474 | 2720 | 2708 | 2138 | 2202 | 2228 | 1248 | 1410 | 1188 |
| MTDF2312 | y | 1414 | 1336 | 1418 | 1424 | 1380 | 1162 | 1276 | 820 | 772 | 1010 | 1410 | 1418 |
| MTDF2314 | x | 3272 | 2942 | 2922 | 2478 | 2704 | 2618 | 2060 | 2116 | 2140 | 1192 | 1310 | 1114 |
| MTDF2314 | y | 1400 | 1314 | 1398 | 1396 | 1364 | 1178 | 1280 | 834 | 784 | 938 | 1410 | 1414 |
| MTDF2316 | x | 3196 | 2906 | 2906 | 2492 | 2698 | 2656 | 2152 | 2166 | 2142 | 1338 | 1382 | 1208 |
| MTDF2316 | y | 1398 | 1326 | 1398 | 1400 | 1364 | 1162 | 1290 | 856 | 830 | 1012 | 1400 | 1416 |
| MTDF2318 | x | 3246 | 2948 | 2946 | 2674 | 2752 | 2688 | 2134 | 2210 | 2150 | 1286 | 1356 | 1194 |
| MTDF2318 | y | 1402 | 1328 | 1410 | 1422 | 1388 | 1180 | 1306 | 824 | 776 | 988 | 1402 | 1400 |
| MTDF2320 | x | 3132 | 2852 | 2848 | 2428 | 2652 | 2630 | 2202 | 2138 | 2102 | 1282 | 1304 | 1190 |
| MTDF2320 | y | 1456 | 1334 | 1420 | 1398 | 1360 | 1164 | 1304 | 842 | 804 | 1020 | 1394 | 1404 |
| MTDF2322 | x | 3234 | 2900 | 2894 | 2480 | 2694 | 2680 | 2182 | 2198 | 2192 | 1304 | 1362 | 1228 |
| MTDF2322 | y | 1418 | 1360 | 1436 | 1434 | 1398 | 1188 | 1314 | 852 | 816 | 978 | 1412 | 1406 |
| MTDF2324 | x | 3214 | 2916 | 2904 | 2472 | 2670 | 2654 | 2086 | 2100 | 2070 | 1208 | 1344 | 1144 |
| MTDF2324 | y | 1404 | 1310 | 1398 | 1398 | 1358 | 1142 | 1290 | 820 | 786 | 998 | 1398 | 1404 |
| MTDF2326 | x | 3096 | 2840 | 2824 | 2418 | 2642 | 2632 | 2166 | 2158 | 2136 | 1270 | 1376 | 1220 |
| MTDF2326 | y | 1410 | 1324 | 1406 | 1392 | 1364 | 1166 | 1276 | 848 | 814 | 978 | 1368 | 1374 |
| MTDF2328 | x | 3230 | 2934 | 2914 | 2526 | 2754 | 2740 | 2238 | 2228 | 2212 | 1316 | 1406 | 1208 |
| MTDF2328 | y | 1426 | 1340 | 1418 | 1422 | 1378 | 1166 | 1294 | 816 | 772 | 962 | 1378 | 1376 |
| MTDF2330 | x | 3192 | 2878 | 2868 | 2428 | 2658 | 2634 | 2104 | 2102 | 2074 | 1166 | 1292 | 1104 |
| MTDF2330 | y | 1416 | 1320 | 1402 | 1398 | 1356 | 1122 | 1274 | 814 | 778 | 1004 | 1408 | 1410 |
| MTDM2332 | x | 3320 | 2996 | 2994 | 2544 | 2792 | 2778 | 2248 | 2220 | 2244 | 1296 | 1396 | 1222 |
| MTDM2332 | y | 1432 | 1348 | 1430 | 1428 | 1388 | 1152 | 1318 | 800 | 760 | 962 | 1392 | 1390 |
| MTDM2334 | x | 3022 | 2776 | 2778 | 2414 | 2600 | 2568 | 2192 | 2180 | 2156 | 1418 | 1448 | 1294 |
| MTDM2334 | y | 1394 | 1324 | 1398 | 1400 | 1354 | 1164 | 1270 | 920 | 896 | 998 | 1384 | 1366 |
| MTDM2336 | x | 3276 | 2996 | 2986 | 2474 | 2778 | 2766 | 2162 | 2230 | 2224 | 1352 | 1354 | 1216 |
| MTDM2336 | y | 1442 | 1340 | 1428 | 1412 | 1378 | 1178 | 1296 | 864 | 830 | 924 | 1380 | 1366 |
| MTDM2338 | x | 3144 | 2846 | 2836 | 2402 | 2646 | 2634 | 2170 | 2176 | 2172 | 1286 | 1340 | 1212 |
| MTDM2338 | y | 1416 | 1326 | 1400 | 1394 | 1366 | 1120 | 1276 | 840 | 808 | 962 | 1356 | 1350 |
| MTDM2340 | x | 3206 | 2920 | 2898 | 2446 | 2670 | 2642 | 2012 | 2086 | 2082 | 1266 | 1232 | 1068 |
| MTDM2340 | y | 1416 | 1314 | 1402 | 1404 | 1366 | 1098 | 1258 | 762 | 720 | 916 | 1372 | 1370 |
| MTDM2342 | x | 3180 | 2846 | 2828 | 2360 | 2622 | 2632 | 2148 | 2126 | 2090 | 1218 | 1244 | 1084 |
| MTDM2342 | y | 1432 | 1338 | 1424 | 1422 | 1380 | 1152 | 1308 | 822 | 780 | 994 | 1402 | 1400 |
| MTDM2344 | x | 3270 | 2944 | 2934 | 2514 | 2764 | 2720 | 2180 | 2192 | 2192 | 1286 | 1360 | 1186 |
| MTDM2344 | y | 1430 | 1364 | 1438 | 1424 | 1396 | 1176 | 1328 | 860 | 822 | 1008 | 1404 | 1404 |
| MTDM2346 | x | 3068 | 2830 | 2816 | 2458 | 2642 | 2648 | 2222 | 2226 | 2200 | 1548 | 1460 | 1332 |
| MTDM2346 | y | 1410 | 1324 | 1406 | 1388 | 1364 | 1172 | 1266 | 904 | 874 | 970 | 1378 | 1380 |
| MTDM2348 | x | 2950 | 2724 | 2706 | 2334 | 2518 | 2526 | 2138 | 2142 | 2130 | 1516 | 1374 | 1252 |
| MTDM2348 | y | 1396 | 1328 | 1404 | 1390 | 1366 | 1172 | 1266 | 930 | 894 | 916 | 1352 | 1342 |
| MTDM2350 | x | 3174 | 2882 | 2868 | 2416 | 2644 | 2662 | 2108 | 2154 | 2136 | 1372 | 1354 | 1190 |
| MTDM2350 | y | 1428 | 1350 | 1426 | 1418 | 1388 | 1182 | 1292 | 828 | 798 | 940 | 1374 | 1370 |
| PHDF2699 | x | 3262 | 3004 | 3018 | 2624 | 2738 | 2796 | 2390 | 2330 | 2268 | 1544 | 1592 | 1176 |
| PHDF2699 | y | 1368 | 1292 | 1360 | 1368 | 1328 | 1124 | 1316 | 800 | 808 | 862 | 1392 | 1404 |
| PHDF2701 | x | 3473 | 3149 | 3125 | 2624 | 2750 | 2849 | 2309 | 2294 | 2282 | 1352 | 1592 | 1100 |
| PHDF2701 | y | 1371 | 1281 | 1368 | 1398 | 1347 | 1041 | 1335 | 714 | 672 | 879 | 1380 | 1398 |
| PHDF2703 | x | 3308 | 2981 | 2969 | 2492 | 2603 | 2708 | 2207 | 2270 | 2249 | 1322 | 1313 | 1088 |
| PHDF2703 | y | 1422 | 1350 | 1422 | 1434 | 1389 | 1113 | 1377 | 804 | 783 | 933 | 1452 | 1467 |
| PHDF2707 | x | 3251 | 2939 | 2918 | 2564 | 2654 | 2687 | 2186 | 2201 | 2192 | 1223 | 1247 | 1025 |
| PHDF2707 | y | 1437 | 1371 | 1440 | 1446 | 1401 | 1107 | 1377 | 819 | 789 | 996 | 1464 | 1482 |
| PHDF2717 | x | 2974 | 2706 | 2696 | 2332 | 2448 | 2530 | 2086 | 2154 | 2126 | 1198 | 1314 | 1038 |
| PHDF2717 | y | 1405 | 1343 | 1405 | 1415 | 1395 | 1171 | 1383 | 837 | 825 | 1009 | 1445 | 1457 |
| PHDF2723 | x | 3174 | 2790 | 2788 | 2198 | 2428 | 2582 | 2070 | 2130 | 2126 | 1154 | 1318 | 978 |
| PHDF2723 | y | 1474 | 1406 | 1456 | 1446 | 1398 | 1140 | 1384 | 844 | 820 | 966 | 1424 | 1428 |
| PHDF2725 | x | 3070 | 2718 | 2680 | 2294 | 2404 | 2520 | 2002 | 2066 | 2036 | 1112 | 1228 | 1008 |
| PHDF2725 | y | 1338 | 1252 | 1338 | 1354 | 1314 | 1004 | 1326 | 752 | 734 | 938 | 1396 | 1410 |
| PHDF2727 | x | 3182 | 2844 | 2828 | 2316 | 2502 | 2552 | 2030 | 2102 | 2028 | 1014 | 1220 | 854 |
| PHDF2727 | y | 1440 | 1346 | 1416 | 1420 | 1370 | 1054 | 1346 | 806 | 734 | 926 | 1444 | 1456 |
| PHDF2729 | x | 3252 | 2970 | 2966 | 2470 | 2636 | 2718 | 2226 | 2208 | 2210 | 1222 | 1488 | 1086 |
| PHDF2729 | y | 1510 | 1440 | 1514 | 1510 | 1464 | 1168 | 1446 | 862 | 814 | 1002 | 1498 | 1486 |
| PHDF2731 | x | 3210 | 2894 | 2910 | 2348 | 2584 | 2642 | 2132 | 2144 | 2132 | 1212 | 1398 | 986 |
| PHDF2731 | y | 1436 | 1368 | 1430 | 1426 | 1374 | 1114 | 1352 | 812 | 774 | 926 | 1412 | 1422 |
| PHDM2697 | x | 3210 | 2976 | 2982 | 2512 | 2672 | 2718 | 2302 | 2274 | 2268 | 1406 | 1392 | 1172 |
| PHDM2697 | y | 1454 | 1390 | 1464 | 1464 | 1414 | 1186 | 1422 | 898 | 854 | 962 | 1470 | 1474 |
| PHDM2705 | x | 3185 | 2765 | 2765 | 2255 | 2396 | 2537 | 1964 | 1955 | 1925 | 950 | 1046 | 710 |
| PHDM2705 | y | 1422 | 1338 | 1428 | 1440 | 1386 | 1053 | 1389 | 714 | 669 | 894 | 1440 | 1470 |
| PHDM2709 | x | 3242 | 2921 | 2870 | 2438 | 2621 | 2642 | 2096 | 2159 | 2138 | 1112 | 1421 | 944 |
| PHDM2709 | y | 1548 | 1488 | 1548 | 1545 | 1500 | 1215 | 1491 | 945 | 885 | 1044 | 1524 | 1545 |
| PHDM2711 | x | 3128 | 2843 | 2828 | 2462 | 2576 | 2633 | 2189 | 2207 | 2183 | 1169 | 1412 | 1058 |
| PHDM2711 | y | 1473 | 1401 | 1470 | 1476 | 1416 | 1176 | 1416 | 888 | 843 | 1050 | 1452 | 1449 |
| PHDM2713 | x | 3356 | 3017 | 3026 | 2573 | 2687 | 2744 | 2195 | 2258 | 2237 | 1199 | 1454 | 1028 |
| PHDM2713 | y | 1413 | 1344 | 1428 | 1440 | 1383 | 1071 | 1383 | 813 | 780 | 1008 | 1485 | 1500 |
| PHDM2715 | x | 3320 | 2954 | 2966 | 2459 | 2579 | 2708 | 2189 | 2207 | 2204 | 1271 | 1439 | 1139 |
| PHDM2715 | y | 1431 | 1359 | 1437 | 1464 | 1392 | 1092 | 1428 | 852 | 795 | 993 | 1482 | 1479 |
| PHDM2719 | x | 3294 | 2980 | 2986 | 2440 | 2640 | 2690 | 2188 | 2192 | 2160 | 1138 | 1306 | 974 |
| PHDM2719 | y | 1364 | 1294 | 1372 | 1390 | 1328 | 1106 | 1344 | 784 | 744 | 954 | 1410 | 1420 |
| PHDM2721 | x | 3288 | 2962 | 2958 | 2452 | 2636 | 2716 | 2192 | 2242 | 2212 | 1162 | 1402 | 1034 |
| PHDM2721 | y | 1422 | 1356 | 1412 | 1420 | 1376 | 1110 | 1370 | 796 | 776 | 970 | 1442 | 1446 |
| PHDM2733 | x | 3048 | 2732 | 2736 | 2236 | 2426 | 2526 | 1994 | 2066 | 2064 | 940 | 1186 | 794 |
| PHDM2733 | y | 1474 | 1388 | 1472 | 1456 | 1414 | 1118 | 1406 | 846 | 772 | 954 | 1422 | 1420 |
| PHDM2735 | x | 3368 | 3044 | 3064 | 2578 | 2728 | 2846 | 2238 | 2260 | 2266 | 1158 | 1420 | 1052 |
| PHDM2735 | y | 1462 | 1386 | 1452 | 1454 | 1396 | 1168 | 1386 | 808 | 758 | 990 | 1434 | 1428 |
| FEEDM | x | 2508 | 2262 | 2254 | 2059 | 2031 | 1961 | 1713 | 1513 | 1494 | 688 | 574 | 452 |
| FEEDM | y | 1237 | 1139 | 1261 | 1274 | 1192 | 1001 | 1135 | 887 | 757 | 892 | 1274 | 1258 |
| FEEDF | x | 4620 | 4083 | 4161 | 3596 | 3612 | 3776 | 3433 | 3108 | 3109 | 1919 | 1767 | 1575 |
| FEEDF | y | 1927 | 1885 | 1999 | 1947 | 1854 | 1526 | 1716 | 1334 | 1130 | 1257 | 1857 | 1689 |

Specimens are colour coded by species. Colours correspond to those seen in figure 5.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Appendix 2c(II): Ventral Landmark Coordinate Data** | | | | | | | | | | | | | | | | | | | | |
|  |  | Landmark Coordinate | | | | | | | | | | | | | | | | | | |
| Specimen # | Coord. (X/Y) | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| AAVF2399 | x | 1380 | 1288 | 1368 | 1704 | 1658 | 1788 | 1842 | 1987 | 2245 | 2479 | 2737 | 2807 | 2899 | 2837 | 2805 | 2791 | 2843 | 2779 | 2363 |
| AAVF2399 | y | 1438 | 1544 | 1646 | 1872 | 1652 | 1792 | 1606 | 1495 | 1443 | 1435 | 1435 | 1459 | 1463 | 1521 | 1579 | 1537 | 1565 | 1551 | 1587 |
| AAVF2401 | x | 1471 | 1363 | 1431 | 1819 | 1767 | 1915 | 1971 | 2105 | 2369 | 2583 | 2829 | 2915 | 2971 | 2919 | 2873 | 2863 | 2921 | 2855 | 2407 |
| AAVF2401 | y | 1431 | 1525 | 1625 | 1815 | 1613 | 1715 | 1553 | 1481 | 1425 | 1417 | 1411 | 1429 | 1429 | 1481 | 1535 | 1487 | 1525 | 1509 | 1543 |
| AAVF2403 | x | 1421 | 1307 | 1367 | 1691 | 1677 | 1849 | 1875 | 2029 | 2291 | 2473 | 2775 | 2873 | 2931 | 2873 | 2831 | 2829 | 2877 | 2827 | 2393 |
| AAVF2403 | y | 1415 | 1519 | 1623 | 1821 | 1613 | 1711 | 1559 | 1443 | 1397 | 1393 | 1385 | 1405 | 1403 | 1459 | 1521 | 1463 | 1511 | 1493 | 1529 |
| AAVF2405 | x | 1275 | 1145 | 1231 | 1643 | 1569 | 1761 | 1781 | 1961 | 2323 | 2559 | 2889 | 3027 | 3087 | 3029 | 2983 | 2973 | 3037 | 2951 | 2423 |
| AAVF2405 | y | 1425 | 1513 | 1657 | 1941 | 1685 | 1795 | 1603 | 1487 | 1423 | 1423 | 1425 | 1447 | 1445 | 1519 | 1585 | 1525 | 1571 | 1547 | 1583 |
| AAVF2407 | x | 1214 | 1106 | 1220 | 1588 | 1512 | 1666 | 1710 | 1854 | 2216 | 2460 | 2782 | 2872 | 2936 | 2896 | 2850 | 2838 | 2908 | 2822 | 2332 |
| AAVF2407 | y | 1441 | 1535 | 1655 | 1871 | 1651 | 1771 | 1599 | 1511 | 1417 | 1415 | 1403 | 1427 | 1419 | 1483 | 1551 | 1495 | 1543 | 1513 | 1561 |
| AAVF2409 | x | 1256 | 1152 | 1230 | 1626 | 1560 | 1706 | 1746 | 1902 | 2198 | 2424 | 2708 | 2780 | 2858 | 2826 | 2782 | 2774 | 2830 | 2752 | 2294 |
| AAVF2409 | y | 1425 | 1519 | 1655 | 1863 | 1639 | 1769 | 1587 | 1479 | 1403 | 1403 | 1393 | 1421 | 1419 | 1491 | 1555 | 1505 | 1539 | 1509 | 1547 |
| AAVM2393 | x | 1026 | 912 | 1104 | 1389 | 1389 | 1581 | 1662 | 1881 | 2289 | 2664 | 3093 | 3207 | 3351 | 3273 | 3204 | 3171 | 3291 | 3132 | 2520 |
| AAVM2393 | y | 1437 | 1533 | 1686 | 2127 | 1716 | 1878 | 1611 | 1488 | 1413 | 1410 | 1386 | 1413 | 1407 | 1536 | 1677 | 1584 | 1650 | 1587 | 1626 |
| AAVM2395 | x | 1218 | 1068 | 1197 | 1587 | 1584 | 1779 | 1812 | 2001 | 2415 | 2748 | 3156 | 3234 | 3363 | 3300 | 3192 | 3192 | 3273 | 3162 | 2598 |
| AAVM2395 | y | 1439 | 1550 | 1715 | 2147 | 1703 | 1895 | 1616 | 1490 | 1400 | 1400 | 1403 | 1433 | 1439 | 1535 | 1655 | 1559 | 1643 | 1571 | 1607 |
| AAVM2397 | x | 990 | 870 | 1023 | 1407 | 1296 | 1533 | 1572 | 1752 | 2271 | 2478 | 2883 | 3003 | 3078 | 3075 | 3015 | 2997 | 3087 | 2982 | 2406 |
| AAVM2397 | y | 1430 | 1538 | 1688 | 2129 | 1691 | 1862 | 1637 | 1487 | 1409 | 1406 | 1403 | 1433 | 1436 | 1544 | 1661 | 1574 | 1634 | 1595 | 1616 |
| CCVF2477 | x | 1260 | 1122 | 1278 | 1666 | 1456 | 1750 | 1706 | 1826 | 2066 | 2384 | 2816 | 2890 | 2958 | 2958 | 2906 | 2886 | 2966 | 2860 | 2502 |
| CCVF2477 | y | 1492 | 1624 | 1770 | 2120 | 1842 | 1998 | 1708 | 1598 | 1506 | 1510 | 1508 | 1532 | 1524 | 1592 | 1670 | 1608 | 1650 | 1628 | 1752 |
| CCVF2479 | x | 1018 | 908 | 1070 | 1478 | 1242 | 1570 | 1570 | 1676 | 1978 | 2348 | 2794 | 2838 | 2946 | 3004 | 2960 | 2922 | 3026 | 2916 | 2416 |
| CCVF2479 | y | 1510 | 1650 | 1828 | 2188 | 1898 | 2050 | 1784 | 1608 | 1518 | 1524 | 1514 | 1556 | 1556 | 1642 | 1738 | 1664 | 1720 | 1706 | 1878 |
| CCVF2481 | x | 1202 | 1054 | 1214 | 1590 | 1402 | 1734 | 1738 | 1790 | 2116 | 2432 | 2824 | 2870 | 2954 | 2998 | 2964 | 2940 | 3030 | 2934 | 2524 |
| CCVF2481 | y | 1546 | 1678 | 1842 | 2222 | 1914 | 2076 | 1788 | 1642 | 1544 | 1542 | 1544 | 1588 | 1574 | 1652 | 1722 | 1662 | 1708 | 1692 | 1822 |
| CCVF2483 | x | 1214 | 1064 | 1212 | 1630 | 1408 | 1742 | 1744 | 1794 | 2080 | 2350 | 2812 | 2910 | 2986 | 2976 | 2942 | 2908 | 3004 | 2890 | 2526 |
| CCVF2483 | y | 1464 | 1584 | 1776 | 2132 | 1834 | 2014 | 1708 | 1580 | 1488 | 1492 | 1500 | 1530 | 1524 | 1612 | 1680 | 1630 | 1670 | 1648 | 1772 |
| CCVF2485 | x | 1126 | 1016 | 1154 | 1564 | 1382 | 1708 | 1690 | 1786 | 2052 | 2360 | 2734 | 2832 | 2932 | 2954 | 2904 | 2870 | 2976 | 2866 | 2414 |
| CCVF2485 | y | 1484 | 1606 | 1796 | 2122 | 1842 | 1954 | 1708 | 1568 | 1488 | 1482 | 1484 | 1510 | 1508 | 1596 | 1676 | 1612 | 1664 | 1632 | 1792 |
| CCVF2487 | x | 1250 | 1098 | 1242 | 1654 | 1438 | 1772 | 1770 | 1776 | 2054 | 2400 | 2790 | 2878 | 2964 | 2974 | 2936 | 2906 | 2992 | 2890 | 2512 |
| CCVF2487 | y | 1544 | 1688 | 1832 | 2180 | 1906 | 2056 | 1740 | 1634 | 1504 | 1494 | 1470 | 1508 | 1492 | 1572 | 1662 | 1592 | 1646 | 1620 | 1786 |
| CCVF2489 | x | 1214 | 1072 | 1222 | 1644 | 1410 | 1640 | 1646 | 1764 | 2056 | 2366 | 2718 | 2764 | 2854 | 2926 | 2886 | 2872 | 2944 | 2866 | 2470 |
| CCVF2489 | y | 1528 | 1666 | 1826 | 2130 | 1858 | 1944 | 1736 | 1666 | 1520 | 1508 | 1516 | 1548 | 1554 | 1618 | 1692 | 1626 | 1678 | 1658 | 1802 |
| CCVF2491 | x | 1062 | 910 | 1058 | 1508 | 1286 | 1626 | 1646 | 1730 | 1930 | 2408 | 2872 | 2942 | 3022 | 3054 | 3012 | 2982 | 3080 | 2962 | 2462 |
| CCVF2491 | y | 1600 | 1732 | 1896 | 2290 | 2004 | 2134 | 1838 | 1684 | 1604 | 1574 | 1582 | 1612 | 1600 | 1710 | 1792 | 1730 | 1782 | 1750 | 1894 |
| CCVF2493 | x | 1206 | 1050 | 1208 | 1634 | 1400 | 1726 | 1694 | 1780 | 2018 | 2302 | 2800 | 2848 | 2930 | 2944 | 2904 | 2874 | 2958 | 2860 | 2444 |
| CCVF2493 | y | 1524 | 1656 | 1832 | 2186 | 1902 | 2052 | 1774 | 1654 | 1526 | 1506 | 1508 | 1546 | 1528 | 1622 | 1690 | 1632 | 1678 | 1664 | 1824 |
| CCVF2495 | x | 1080 | 974 | 1104 | 1506 | 1350 | 1612 | 1596 | 1694 | 1910 | 2296 | 2742 | 2834 | 2944 | 2930 | 2896 | 2868 | 2960 | 2852 | 2430 |
| CCVF2495 | y | 1464 | 1580 | 1738 | 2104 | 1882 | 1956 | 1712 | 1580 | 1464 | 1450 | 1464 | 1478 | 1472 | 1550 | 1640 | 1570 | 1622 | 1600 | 1724 |
| CCVM2457 | x | 1019 | 884 | 1031 | 1457 | 1235 | 1568 | 1583 | 1667 | 2009 | 2390 | 2903 | 3008 | 3122 | 3170 | 3119 | 3077 | 3194 | 3038 | 2441 |
| CCVM2457 | y | 1511 | 1634 | 1811 | 2267 | 1916 | 2111 | 1838 | 1595 | 1514 | 1520 | 1517 | 1592 | 1568 | 1715 | 1808 | 1727 | 1781 | 1778 | 1934 |
| CCVM2459 | x | 1052 | 906 | 1024 | 1418 | 1242 | 1590 | 1594 | 1640 | 1916 | 2314 | 2830 | 3020 | 3118 | 3130 | 3070 | 3042 | 3152 | 3024 | 2528 |
| CCVM2459 | y | 1466 | 1560 | 1674 | 2222 | 1952 | 2126 | 1820 | 1652 | 1534 | 1518 | 1488 | 1532 | 1528 | 1658 | 1776 | 1686 | 1740 | 1740 | 1886 |
| CCVM2461 | x | 936 | 807 | 951 | 1413 | 1233 | 1572 | 1590 | 1614 | 2016 | 2487 | 3051 | 3144 | 3252 | 3351 | 3312 | 3267 | 3378 | 3222 | 2640 |
| CCVM2461 | y | 1452 | 1572 | 1752 | 2178 | 1881 | 2082 | 1767 | 1596 | 1455 | 1470 | 1473 | 1512 | 1518 | 1662 | 1764 | 1683 | 1734 | 1734 | 1914 |
| CCVM2463 | x | 1221 | 1077 | 1209 | 1551 | 1380 | 1722 | 1716 | 1737 | 2046 | 2466 | 2943 | 3090 | 3213 | 3216 | 3189 | 3141 | 3261 | 3123 | 2622 |
| CCVM2463 | y | 1443 | 1587 | 1746 | 2169 | 1851 | 2010 | 1701 | 1563 | 1452 | 1434 | 1446 | 1461 | 1464 | 1581 | 1701 | 1626 | 1650 | 1659 | 1815 |
| CCVM2465 | x | 1080 | 936 | 1101 | 1590 | 1332 | 1686 | 1677 | 1743 | 2043 | 2457 | 3027 | 3228 | 3309 | 3309 | 3261 | 3213 | 3333 | 3210 | 2634 |
| CCVM2465 | y | 1595 | 1748 | 1898 | 2312 | 1997 | 2138 | 1838 | 1679 | 1544 | 1538 | 1514 | 1547 | 1553 | 1670 | 1769 | 1694 | 1754 | 1730 | 1865 |
| CCVM2467 | x | 1005 | 903 | 1038 | 1485 | 1245 | 1611 | 1581 | 1632 | 1905 | 2346 | 2871 | 2967 | 3072 | 3093 | 3051 | 3000 | 3153 | 3000 | 2457 |
| CCVM2467 | y | 1490 | 1607 | 1817 | 2246 | 1907 | 2120 | 1769 | 1616 | 1505 | 1511 | 1520 | 1547 | 1547 | 1667 | 1784 | 1697 | 1748 | 1730 | 1880 |
| CCVM2469 | x | 1161 | 1017 | 1179 | 1611 | 1344 | 1713 | 1662 | 1767 | 2052 | 2457 | 2937 | 3006 | 3114 | 3135 | 3081 | 3060 | 3159 | 3036 | 2511 |
| CCVM2469 | y | 1490 | 1652 | 1781 | 2138 | 1871 | 2006 | 1718 | 1607 | 1484 | 1451 | 1457 | 1496 | 1478 | 1586 | 1676 | 1604 | 1655 | 1640 | 1802 |
| CCVM2471 | x | 1083 | 954 | 1104 | 1620 | 1338 | 1707 | 1689 | 1809 | 2046 | 2448 | 2955 | 3051 | 3177 | 3174 | 3120 | 3078 | 3198 | 3057 | 2556 |
| CCVM2471 | y | 1544 | 1667 | 1859 | 2234 | 1952 | 2093 | 1823 | 1631 | 1532 | 1526 | 1544 | 1553 | 1556 | 1661 | 1760 | 1679 | 1739 | 1718 | 1877 |
| CCVM2473 | x | 1173 | 999 | 1143 | 1533 | 1353 | 1677 | 1686 | 1767 | 1995 | 2433 | 2949 | 3021 | 3108 | 3150 | 3111 | 3072 | 3171 | 3054 | 2565 |
| CCVM2473 | y | 1529 | 1652 | 1841 | 2231 | 1907 | 2081 | 1772 | 1637 | 1499 | 1496 | 1475 | 1502 | 1481 | 1589 | 1676 | 1607 | 1652 | 1637 | 1817 |
| CCVM2475 | x | 1146 | 1023 | 1143 | 1581 | 1362 | 1755 | 1689 | 1794 | 2010 | 2424 | 2772 | 2820 | 2907 | 2994 | 2943 | 2904 | 3012 | 2904 | 2511 |
| CCVM2475 | y | 1541 | 1691 | 1835 | 2219 | 1949 | 2108 | 1760 | 1649 | 1547 | 1541 | 1532 | 1580 | 1559 | 1661 | 1751 | 1667 | 1727 | 1715 | 1871 |
| CUVF2373 | x | 1237 | 1131 | 1227 | 1613 | 1537 | 1697 | 1745 | 1883 | 2325 | 2519 | 2841 | 2907 | 2995 | 2961 | 2927 | 2913 | 2975 | 2897 | 2395 |
| CUVF2373 | y | 1404 | 1504 | 1620 | 1872 | 1640 | 1760 | 1568 | 1484 | 1400 | 1396 | 1398 | 1434 | 1424 | 1502 | 1560 | 1512 | 1552 | 1530 | 1532 |
| CUVF2375 | x | 1396 | 1276 | 1362 | 1708 | 1652 | 1824 | 1862 | 2029 | 2456 | 2624 | 2932 | 3016 | 3118 | 3070 | 3020 | 3020 | 3072 | 3010 | 2540 |
| CUVF2375 | y | 1394 | 1488 | 1612 | 1850 | 1640 | 1756 | 1588 | 1451 | 1391 | 1388 | 1382 | 1416 | 1408 | 1482 | 1546 | 1494 | 1534 | 1508 | 1530 |
| CUVF2377 | x | 1274 | 1158 | 1240 | 1566 | 1554 | 1700 | 1754 | 1964 | 2352 | 2522 | 2842 | 2914 | 2984 | 2950 | 2904 | 2894 | 2958 | 2888 | 2414 |
| CUVF2377 | y | 1411 | 1499 | 1619 | 1865 | 1659 | 1759 | 1577 | 1463 | 1401 | 1405 | 1415 | 1439 | 1437 | 1501 | 1565 | 1511 | 1557 | 1531 | 1551 |
| CUVF2379 | x | 1226 | 1154 | 1232 | 1578 | 1522 | 1678 | 1718 | 1994 | 2312 | 2516 | 2830 | 2896 | 2948 | 2920 | 2874 | 2862 | 2926 | 2840 | 2406 |
| CUVF2379 | y | 1438 | 1532 | 1636 | 1878 | 1626 | 1740 | 1586 | 1476 | 1430 | 1422 | 1422 | 1444 | 1434 | 1512 | 1572 | 1520 | 1564 | 1542 | 1554 |
| CUVF2381 | x | 1296 | 1204 | 1288 | 1620 | 1558 | 1730 | 1788 | 2016 | 2384 | 2524 | 2866 | 2946 | 3032 | 2972 | 2942 | 2916 | 2986 | 2914 | 2444 |
| CUVF2381 | y | 1390 | 1482 | 1594 | 1840 | 1602 | 1742 | 1558 | 1450 | 1404 | 1404 | 1412 | 1446 | 1446 | 1510 | 1580 | 1522 | 1566 | 1544 | 1536 |
| CUVF2383 | x | 1246 | 1164 | 1250 | 1588 | 1528 | 1674 | 1734 | 2002 | 2294 | 2444 | 2796 | 2866 | 2956 | 2912 | 2876 | 2860 | 2918 | 2854 | 2456 |
| CUVF2383 | y | 1438 | 1528 | 1654 | 1876 | 1648 | 1756 | 1582 | 1448 | 1396 | 1390 | 1376 | 1398 | 1394 | 1446 | 1506 | 1456 | 1492 | 1478 | 1524 |
| CUVF2385 | x | 1378 | 1266 | 1350 | 1704 | 1676 | 1824 | 1846 | 2084 | 2426 | 2578 | 2892 | 2928 | 3014 | 2988 | 2948 | 2938 | 2986 | 2926 | 2462 |
| CUVF2385 | y | 1402 | 1506 | 1626 | 1844 | 1646 | 1766 | 1582 | 1468 | 1416 | 1414 | 1412 | 1442 | 1430 | 1490 | 1548 | 1500 | 1534 | 1516 | 1526 |
| CUVF2387 | x | 1306 | 1230 | 1340 | 1648 | 1582 | 1742 | 1788 | 1998 | 2354 | 2526 | 2868 | 2936 | 2998 | 2986 | 2960 | 2938 | 3002 | 2930 | 2478 |
| CUVF2387 | y | 1466 | 1576 | 1690 | 1902 | 1680 | 1796 | 1626 | 1508 | 1432 | 1428 | 1410 | 1428 | 1426 | 1492 | 1562 | 1514 | 1546 | 1524 | 1548 |
| CUVF2389 | x | 1238 | 1154 | 1246 | 1616 | 1542 | 1714 | 1776 | 2032 | 2344 | 2500 | 2828 | 2908 | 2978 | 2954 | 2906 | 2896 | 2958 | 2890 | 2418 |
| CUVF2389 | y | 1438 | 1538 | 1660 | 1910 | 1684 | 1798 | 1590 | 1470 | 1434 | 1430 | 1422 | 1444 | 1430 | 1502 | 1568 | 1514 | 1552 | 1538 | 1568 |
| CUVF2391 | x | 1244 | 1160 | 1248 | 1620 | 1554 | 1712 | 1766 | 2030 | 2348 | 2508 | 2830 | 2906 | 2978 | 2958 | 2904 | 2898 | 2964 | 2892 | 2416 |
| CUVF2391 | y | 1442 | 1544 | 1654 | 1916 | 1692 | 1798 | 1588 | 1472 | 1432 | 1426 | 1420 | 1446 | 1434 | 1504 | 1568 | 1514 | 1550 | 1540 | 1568 |
| CUVM2353 | x | 1157 | 1073 | 1189 | 1497 | 1575 | 1711 | 1783 | 2019 | 2393 | 2667 | 3103 | 3195 | 3292 | 3304 | 3247 | 3233 | 3305 | 3211 | 2604 |
| CUVM2353 | y | 1462 | 1556 | 1720 | 2078 | 1712 | 1816 | 1602 | 1496 | 1418 | 1405 | 1396 | 1428 | 1425 | 1536 | 1636 | 1558 | 1618 | 1580 | 1616 |
| CUVM2355 | x | 1222 | 1102 | 1256 | 1590 | 1524 | 1774 | 1826 | 2033 | 2542 | 2788 | 3199 | 3271 | 3391 | 3385 | 3304 | 3292 | 3391 | 3280 | 2683 |
| CUVM2355 | y | 1422 | 1552 | 1686 | 2082 | 1700 | 1848 | 1594 | 1500 | 1384 | 1381 | 1363 | 1417 | 1381 | 1486 | 1612 | 1507 | 1585 | 1555 | 1564 |
| CUVM2357 | x | 1161 | 1008 | 1137 | 1494 | 1437 | 1674 | 1749 | 1978 | 2433 | 2705 | 3188 | 3290 | 3368 | 3341 | 3272 | 3254 | 3353 | 3251 | 2636 |
| CUVM2357 | y | 1470 | 1578 | 1737 | 2163 | 1737 | 1935 | 1677 | 1571 | 1473 | 1471 | 1462 | 1504 | 1507 | 1591 | 1702 | 1615 | 1690 | 1654 | 1669 |
| CUVM2359 | x | 1204 | 1078 | 1206 | 1514 | 1484 | 1724 | 1798 | 1980 | 2542 | 2778 | 3124 | 3242 | 3344 | 3298 | 3232 | 3228 | 3318 | 3208 | 2662 |
| CUVM2359 | y | 1404 | 1502 | 1684 | 2064 | 1678 | 1844 | 1600 | 1516 | 1448 | 1444 | 1440 | 1482 | 1466 | 1582 | 1690 | 1606 | 1668 | 1632 | 1622 |
| CUVM2361 | x | 1106 | 978 | 1122 | 1468 | 1396 | 1654 | 1704 | 1810 | 2422 | 2598 | 3048 | 3168 | 3237 | 3252 | 3186 | 3168 | 3264 | 3129 | 2562 |
| CUVM2361 | y | 1490 | 1600 | 1758 | 2130 | 1702 | 1916 | 1642 | 1556 | 1468 | 1460 | 1454 | 1499 | 1457 | 1595 | 1709 | 1622 | 1691 | 1628 | 1682 |
| CUVM2363 | x | 1152 | 1038 | 1202 | 1540 | 1526 | 1718 | 1762 | 1952 | 2562 | 2734 | 3182 | 3264 | 3342 | 3344 | 3286 | 3272 | 3352 | 3264 | 2668 |
| CUVM2363 | y | 1512 | 1630 | 1798 | 2132 | 1752 | 1900 | 1674 | 1562 | 1454 | 1454 | 1430 | 1476 | 1454 | 1562 | 1666 | 1582 | 1650 | 1616 | 1632 |
| CUVM2365 | x | 1060 | 950 | 1136 | 1468 | 1394 | 1642 | 1708 | 1944 | 2552 | 2698 | 3118 | 3222 | 3348 | 3320 | 3258 | 3246 | 3326 | 3228 | 2648 |
| CUVM2365 | y | 1432 | 1582 | 1734 | 2122 | 1678 | 1900 | 1604 | 1542 | 1436 | 1434 | 1432 | 1470 | 1460 | 1546 | 1656 | 1570 | 1642 | 1592 | 1630 |
| CUVM2367 | x | 1033 | 928 | 1081 | 1513 | 1456 | 1672 | 1657 | 1888 | 2548 | 2773 | 3211 | 3292 | 3415 | 3391 | 3322 | 3307 | 3400 | 3280 | 2653 |
| CUVM2367 | y | 1448 | 1553 | 1745 | 2108 | 1697 | 1895 | 1604 | 1532 | 1430 | 1433 | 1427 | 1490 | 1457 | 1580 | 1691 | 1604 | 1673 | 1640 | 1613 |
| CUVM2369 | x | 1098 | 954 | 1092 | 1449 | 1416 | 1653 | 1701 | 1902 | 2529 | 2814 | 3246 | 3324 | 3420 | 3432 | 3354 | 3327 | 3444 | 3306 | 2682 |
| CUVM2369 | y | 1395 | 1515 | 1686 | 2136 | 1659 | 1854 | 1554 | 1518 | 1410 | 1407 | 1401 | 1452 | 1431 | 1554 | 1689 | 1575 | 1662 | 1617 | 1617 |
| CUVM2371 | x | 1056 | 900 | 1047 | 1431 | 1371 | 1611 | 1683 | 1833 | 2478 | 2748 | 3189 | 3318 | 3423 | 3387 | 3318 | 3303 | 3396 | 3285 | 2610 |
| CUVM2371 | y | 1449 | 1545 | 1734 | 2109 | 1737 | 1884 | 1614 | 1504 | 1426 | 1414 | 1393 | 1426 | 1411 | 1540 | 1648 | 1564 | 1627 | 1600 | 1636 |
| EBVF2743 | x | 603 | 375 | 630 | 1239 | 960 | 1341 | 1320 | 1494 | 1980 | 2334 | 3051 | 3066 | 3213 | 3219 | 3201 | 3177 | 3240 | 3135 | 2436 |
| EBVF2743 | y | 1485 | 1707 | 1974 | 2328 | 2052 | 2214 | 1854 | 1689 | 1458 | 1464 | 1437 | 1515 | 1485 | 1638 | 1698 | 1653 | 1677 | 1659 | 1908 |
| EBVF2745 | x | 783 | 555 | 753 | 1347 | 1011 | 1410 | 1488 | 1605 | 2058 | 2376 | 3015 | 3042 | 3189 | 3189 | 3159 | 3126 | 3210 | 3084 | 2433 |
| EBVF2745 | y | 1539 | 1731 | 1989 | 2358 | 2019 | 2229 | 1830 | 1644 | 1524 | 1509 | 1530 | 1572 | 1563 | 1668 | 1740 | 1683 | 1722 | 1698 | 1947 |
| EBVF2747 | x | 669 | 459 | 711 | 1308 | 990 | 1386 | 1458 | 1731 | 2100 | 2475 | 3120 | 3144 | 3297 | 3378 | 3342 | 3318 | 3402 | 3261 | 2493 |
| EBVF2747 | y | 1555 | 1756 | 2041 | 2446 | 2068 | 2290 | 1909 | 1684 | 1534 | 1534 | 1519 | 1573 | 1543 | 1660 | 1726 | 1684 | 1702 | 1717 | 1984 |
| EBVF2755 | x | 795 | 570 | 723 | 1281 | 1014 | 1401 | 1479 | 1641 | 2025 | 2361 | 2961 | 2973 | 3108 | 3147 | 3108 | 3096 | 3162 | 3057 | 2385 |
| EBVF2755 | y | 1581 | 1794 | 2040 | 2391 | 2079 | 2310 | 1887 | 1713 | 1602 | 1614 | 1626 | 1677 | 1671 | 1788 | 1854 | 1806 | 1839 | 1806 | 2052 |
| EBVF2757 | x | 720 | 516 | 762 | 1440 | 1083 | 1527 | 1611 | 1863 | 2202 | 2610 | 3363 | 3396 | 3573 | 3654 | 3618 | 3582 | 3696 | 3546 | 2718 |
| EBVF2757 | y | 1575 | 1785 | 2082 | 2491 | 2119 | 2413 | 1867 | 1714 | 1531 | 1522 | 1495 | 1552 | 1537 | 1672 | 1765 | 1687 | 1723 | 1720 | 2011 |
| EBVF2760 | x | 666 | 444 | 645 | 1185 | 972 | 1374 | 1482 | 1689 | 2130 | 2436 | 3198 | 3207 | 3399 | 3405 | 3375 | 3345 | 3420 | 3282 | 2547 |
| EBVF2760 | y | 1494 | 1680 | 1971 | 2436 | 2052 | 2403 | 1908 | 1722 | 1572 | 1581 | 1611 | 1677 | 1680 | 1839 | 1905 | 1845 | 1902 | 1875 | 2127 |
| EBVF2764 | x | 813 | 501 | 747 | 1290 | 1035 | 1419 | 1554 | 1713 | 2172 | 2415 | 3153 | 3168 | 3312 | 3369 | 3315 | 3306 | 3387 | 3261 | 2616 |
| EBVF2764 | y | 1626 | 1806 | 2079 | 2493 | 2127 | 2373 | 1956 | 1815 | 1671 | 1677 | 1677 | 1743 | 1728 | 1851 | 1926 | 1869 | 1926 | 1884 | 2142 |
| EBVM2741 | x | 1077 | 798 | 1023 | 1599 | 1305 | 1692 | 1785 | 1962 | 2433 | 2700 | 3447 | 3525 | 3696 | 3735 | 3708 | 3672 | 3759 | 3609 | 2883 |
| EBVM2741 | y | 1565 | 1757 | 2015 | 2405 | 2012 | 2294 | 1856 | 1658 | 1568 | 1556 | 1550 | 1604 | 1592 | 1727 | 1814 | 1757 | 1784 | 1778 | 2024 |
| EBVM2749 | x | 741 | 480 | 660 | 1305 | 984 | 1404 | 1530 | 1662 | 2157 | 2529 | 3183 | 3213 | 3297 | 3339 | 3303 | 3288 | 3360 | 3237 | 2553 |
| EBVM2749 | y | 1644 | 1848 | 2076 | 2481 | 2148 | 2427 | 1989 | 1740 | 1650 | 1647 | 1653 | 1683 | 1686 | 1842 | 1905 | 1854 | 1899 | 1872 | 2082 |
| EBVM2751 | x | 603 | 447 | 603 | 1200 | 906 | 1311 | 1404 | 1575 | 1959 | 2274 | 3054 | 3030 | 3153 | 3201 | 3153 | 3135 | 3213 | 3081 | 2454 |
| EBVM2751 | y | 1377 | 1518 | 1731 | 2298 | 1938 | 2223 | 1731 | 1530 | 1353 | 1344 | 1329 | 1383 | 1392 | 1557 | 1620 | 1563 | 1602 | 1590 | 1842 |
| EBVM2753 | x | 633 | 354 | 588 | 1152 | 882 | 1275 | 1368 | 1542 | 1989 | 2400 | 3168 | 3189 | 3297 | 3378 | 3345 | 3318 | 3396 | 3216 | 2469 |
| EBVM2753 | y | 1494 | 1632 | 1947 | 2406 | 2019 | 2313 | 1887 | 1716 | 1548 | 1563 | 1566 | 1641 | 1638 | 1758 | 1842 | 1773 | 1815 | 1791 | 2070 |
| EBVM2762 | x | 609 | 387 | 588 | 1107 | 915 | 1299 | 1404 | 1518 | 2091 | 2394 | 3126 | 3132 | 3321 | 3345 | 3318 | 3297 | 3363 | 3231 | 2490 |
| EBVM2762 | y | 1545 | 1737 | 1998 | 2478 | 2124 | 2349 | 1938 | 1761 | 1602 | 1590 | 1587 | 1644 | 1641 | 1776 | 1851 | 1797 | 1836 | 1824 | 2049 |
| EBVM2766 | x | 678 | 408 | 588 | 1197 | 900 | 1335 | 1398 | 1542 | 2043 | 2403 | 3102 | 3174 | 3318 | 3348 | 3324 | 3300 | 3366 | 3243 | 2520 |
| EBVM2766 | y | 1174 | 1347 | 1671 | 2166 | 1752 | 2013 | 1521 | 1398 | 1191 | 1179 | 1173 | 1212 | 1203 | 1338 | 1401 | 1350 | 1401 | 1383 | 1644 |
| EBVM2767 | x | 549 | 273 | 501 | 1098 | 789 | 1224 | 1326 | 1449 | 2028 | 2358 | 3138 | 3174 | 3381 | 3378 | 3330 | 3321 | 3396 | 3255 | 2526 |
| EBVM2767 | y | 1449 | 1665 | 1929 | 2406 | 2046 | 2364 | 1830 | 1653 | 1452 | 1449 | 1464 | 1509 | 1506 | 1626 | 1698 | 1638 | 1689 | 1683 | 1968 |
| EJVF2434 | x | 1075 | 994 | 1108 | 1390 | 1285 | 1579 | 1570 | 1795 | 2254 | 2683 | 3181 | 3226 | 3367 | 3379 | 3319 | 3295 | 3400 | 3283 | 2488 |
| EJVF2434 | y | 1546 | 1675 | 1822 | 2197 | 1816 | 2008 | 1744 | 1627 | 1525 | 1537 | 1528 | 1582 | 1576 | 1663 | 1771 | 1687 | 1750 | 1717 | 1738 |
| EJVF2436 | x | 1210 | 1066 | 1231 | 1546 | 1405 | 1699 | 1708 | 1957 | 2401 | 2821 | 3307 | 3349 | 3451 | 3475 | 3415 | 3400 | 3481 | 3367 | 2614 |
| EJVF2436 | y | 1489 | 1600 | 1786 | 2140 | 1798 | 1972 | 1726 | 1603 | 1474 | 1495 | 1492 | 1534 | 1540 | 1630 | 1714 | 1648 | 1705 | 1651 | 1672 |
| EJVF2438 | x | 1188 | 1035 | 1170 | 1572 | 1428 | 1689 | 1710 | 1947 | 2283 | 2721 | 3186 | 3264 | 3387 | 3393 | 3342 | 3318 | 3405 | 3279 | 2538 |
| EJVF2438 | y | 1455 | 1578 | 1764 | 2121 | 1806 | 1977 | 1752 | 1605 | 1497 | 1494 | 1482 | 1530 | 1515 | 1617 | 1701 | 1638 | 1695 | 1650 | 1689 |
| EJVF2440 | x | 1092 | 954 | 1101 | 1464 | 1338 | 1599 | 1626 | 1953 | 2322 | 2748 | 3249 | 3330 | 3441 | 3456 | 3366 | 3348 | 3456 | 3315 | 2568 |
| EJVF2440 | y | 1605 | 1686 | 1914 | 2286 | 1944 | 2106 | 1863 | 1740 | 1590 | 1593 | 1578 | 1617 | 1608 | 1722 | 1851 | 1746 | 1833 | 1800 | 1806 |
| EJVF2442 | x | 1005 | 831 | 981 | 1374 | 1284 | 1509 | 1572 | 1767 | 2172 | 2607 | 3129 | 3196 | 3328 | 3318 | 3232 | 3210 | 3310 | 3168 | 2406 |
| EJVF2442 | y | 1791 | 1905 | 2049 | 2436 | 2115 | 2268 | 2049 | 1911 | 1785 | 1752 | 1710 | 1755 | 1755 | 1809 | 1917 | 1827 | 1905 | 1883 | 1939 |
| EJVF2444 | x | 895 | 772 | 916 | 1345 | 1174 | 1465 | 1480 | 1774 | 2167 | 2614 | 3094 | 3160 | 3304 | 3322 | 3250 | 3247 | 3331 | 3241 | 2365 |
| EJVF2444 | y | 1561 | 1660 | 1846 | 2236 | 1885 | 2017 | 1765 | 1591 | 1498 | 1468 | 1456 | 1492 | 1492 | 1585 | 1690 | 1591 | 1675 | 1654 | 1663 |
| EJVF2446 | x | 1027 | 877 | 1009 | 1357 | 1204 | 1486 | 1507 | 1807 | 2182 | 2647 | 3094 | 3136 | 3262 | 3304 | 3232 | 3211 | 3322 | 3193 | 2371 |
| EJVF2446 | y | 1594 | 1765 | 1927 | 2203 | 1891 | 2044 | 1789 | 1618 | 1546 | 1570 | 1573 | 1624 | 1627 | 1720 | 1822 | 1732 | 1822 | 1771 | 1759 |
| EJVF2448 | x | 1072 | 904 | 1069 | 1450 | 1327 | 1597 | 1618 | 1777 | 2242 | 2674 | 3151 | 3220 | 3349 | 3367 | 3313 | 3286 | 3385 | 3295 | 2464 |
| EJVF2448 | y | 1579 | 1699 | 1861 | 2260 | 1885 | 2065 | 1792 | 1681 | 1552 | 1549 | 1537 | 1576 | 1582 | 1681 | 1792 | 1711 | 1771 | 1741 | 1762 |
| EJVF2450 | x | 934 | 805 | 964 | 1336 | 1156 | 1438 | 1477 | 1663 | 2158 | 2617 | 3031 | 3151 | 3250 | 3307 | 3256 | 3232 | 3325 | 3244 | 2383 |
| EJVF2450 | y | 1534 | 1627 | 1819 | 2173 | 1843 | 2005 | 1780 | 1651 | 1510 | 1510 | 1495 | 1537 | 1525 | 1627 | 1726 | 1648 | 1702 | 1705 | 1702 |
| EJVF2452 | x | 853 | 721 | 883 | 1300 | 1117 | 1396 | 1414 | 1714 | 2134 | 2596 | 3124 | 3175 | 3289 | 3322 | 3253 | 3241 | 3328 | 3226 | 2347 |
| EJVF2452 | y | 1537 | 1636 | 1834 | 2179 | 1864 | 2020 | 1792 | 1591 | 1531 | 1510 | 1498 | 1549 | 1543 | 1633 | 1753 | 1669 | 1720 | 1699 | 1729 |
| EJVM2411 | x | 440 | 260 | 528 | 820 | 804 | 1180 | 1220 | 1428 | 1996 | 2748 | 3336 | 3460 | 3624 | 3628 | 3480 | 3488 | 3628 | 3440 | 2416 |
| EJVM2411 | y | 1511 | 1647 | 1887 | 2615 | 1911 | 2239 | 1815 | 1659 | 1539 | 1531 | 1511 | 1555 | 1543 | 1755 | 1951 | 1787 | 1931 | 1767 | 1843 |
| EJVM2413 | x | 364 | 188 | 460 | 828 | 736 | 1132 | 1136 | 1492 | 1964 | 2612 | 3256 | 3384 | 3548 | 3572 | 3448 | 3432 | 3572 | 3400 | 2344 |
| EJVM2413 | y | 1567 | 1703 | 1955 | 2635 | 1955 | 2191 | 1819 | 1651 | 1571 | 1555 | 1543 | 1607 | 1607 | 1783 | 1995 | 1835 | 1943 | 1835 | 1875 |
| EJVM2415 | x | 440 | 236 | 500 | 892 | 752 | 1124 | 1220 | 1440 | 2032 | 2632 | 3372 | 3460 | 3720 | 3648 | 3536 | 3472 | 3684 | 3420 | 2464 |
| EJVM2415 | y | 1559 | 1699 | 1943 | 2635 | 1955 | 2227 | 1875 | 1667 | 1539 | 1535 | 1547 | 1627 | 1615 | 1779 | 2043 | 1855 | 1979 | 1891 | 1875 |
| EJVM2417 | x | 516 | 352 | 592 | 912 | 800 | 1192 | 1208 | 1476 | 2040 | 2660 | 3252 | 3332 | 3524 | 3580 | 3428 | 3428 | 3572 | 3300 | 2428 |
| EJVM2417 | y | 1591 | 1675 | 1947 | 2651 | 1983 | 2299 | 1887 | 1667 | 1551 | 1511 | 1515 | 1591 | 1591 | 1763 | 1955 | 1791 | 1935 | 1871 | 1831 |
| EJVM2419 | x | 508 | 340 | 568 | 924 | 840 | 1232 | 1268 | 1552 | 2080 | 2688 | 3292 | 3356 | 3508 | 3624 | 3476 | 3484 | 3628 | 3464 | 2508 |
| EJVM2419 | y | 1551 | 1715 | 1907 | 2603 | 1963 | 2275 | 1819 | 1663 | 1531 | 1507 | 1491 | 1551 | 1551 | 1719 | 1915 | 1743 | 1887 | 1783 | 1847 |
| EJVM2421 | x | 444 | 324 | 516 | 888 | 760 | 1136 | 1216 | 1444 | 2100 | 2684 | 3348 | 3476 | 3632 | 3648 | 3528 | 3500 | 3676 | 3492 | 2500 |
| EJVM2421 | y | 1423 | 1659 | 1879 | 2535 | 1903 | 2139 | 1731 | 1559 | 1455 | 1443 | 1435 | 1503 | 1491 | 1675 | 1863 | 1715 | 1823 | 1747 | 1703 |
| EJVM2423 | x | 508 | 356 | 612 | 1000 | 892 | 1224 | 1276 | 1420 | 2088 | 2628 | 3176 | 3292 | 3508 | 3532 | 3420 | 3400 | 3548 | 3360 | 2384 |
| EJVM2423 | y | 1691 | 1823 | 2039 | 2655 | 2055 | 2331 | 1935 | 1755 | 1587 | 1575 | 1547 | 1595 | 1611 | 1791 | 1983 | 1835 | 1943 | 1847 | 1883 |
| EJVM2425 | x | 460 | 292 | 568 | 880 | 784 | 1200 | 1224 | 1432 | 1908 | 2584 | 3256 | 3356 | 3556 | 3652 | 3496 | 3500 | 3656 | 3468 | 2380 |
| EJVM2425 | y | 1651 | 1755 | 1995 | 2555 | 2007 | 2263 | 1867 | 1687 | 1567 | 1531 | 1519 | 1591 | 1587 | 1763 | 1959 | 1799 | 1935 | 1859 | 1859 |
| EJVM2427 | x | 376 | 220 | 492 | 952 | 736 | 1104 | 1144 | 1372 | 1952 | 2612 | 3228 | 3332 | 3532 | 3624 | 3452 | 3456 | 3616 | 3412 | 2268 |
| EJVM2427 | y | 1539 | 1631 | 1883 | 2599 | 1899 | 2163 | 1815 | 1599 | 1539 | 1539 | 1551 | 1623 | 1631 | 1795 | 2003 | 1827 | 1987 | 1879 | 1819 |
| EJVM2429 | x | 580 | 428 | 660 | 1000 | 864 | 1208 | 1276 | 1584 | 2064 | 2640 | 3216 | 3376 | 3560 | 3580 | 3440 | 3444 | 3576 | 3424 | 2436 |
| EJVM2429 | y | 1527 | 1667 | 1871 | 2583 | 1899 | 2191 | 1795 | 1627 | 1519 | 1507 | 1507 | 1587 | 1567 | 1759 | 1927 | 1767 | 1915 | 1811 | 1779 |
| HGVF2521 | x | 1008 | 828 | 1020 | 1542 | 1179 | 1527 | 1578 | 1746 | 2256 | 2556 | 2970 | 3006 | 3366 | 3321 | 3261 | 3237 | 3330 | 3210 | 2565 |
| HGVF2521 | y | 1626 | 1773 | 1965 | 2343 | 2019 | 2199 | 1890 | 1761 | 1644 | 1629 | 1605 | 1677 | 1617 | 1761 | 1872 | 1791 | 1851 | 1809 | 1983 |
| HGVF2523 | x | 1258 | 1092 | 1298 | 1774 | 1446 | 1780 | 1848 | 1982 | 2478 | 2740 | 3096 | 3156 | 3452 | 3434 | 3366 | 3358 | 3442 | 3358 | 2756 |
| HGVF2523 | y | 1501 | 1647 | 1835 | 2163 | 1833 | 2003 | 1711 | 1623 | 1471 | 1465 | 1467 | 1535 | 1503 | 1639 | 1733 | 1641 | 1721 | 1665 | 1801 |
| HGVF2525 | x | 1306 | 1124 | 1314 | 1790 | 1490 | 1804 | 1838 | 1986 | 2448 | 2704 | 3032 | 3096 | 3410 | 3364 | 3308 | 3288 | 3386 | 3270 | 2736 |
| HGVF2525 | y | 1502 | 1638 | 1822 | 2186 | 1878 | 2026 | 1760 | 1654 | 1524 | 1528 | 1530 | 1598 | 1576 | 1690 | 1788 | 1706 | 1772 | 1708 | 1872 |
| HGVF2771 | x | 1194 | 1032 | 1240 | 1642 | 1334 | 1652 | 1696 | 1854 | 2302 | 2592 | 2872 | 2930 | 3286 | 3240 | 3184 | 3168 | 3240 | 3150 | 2614 |
| HGVF2771 | y | 1456 | 1586 | 1776 | 2144 | 1808 | 1978 | 1720 | 1620 | 1490 | 1488 | 1476 | 1554 | 1496 | 1634 | 1722 | 1642 | 1718 | 1662 | 1846 |
| HGVF2773 | x | 1081 | 913 | 1117 | 1543 | 1204 | 1555 | 1582 | 1720 | 2395 | 2689 | 2965 | 3046 | 3379 | 3388 | 3328 | 3310 | 3406 | 3283 | 2701 |
| HGVF2773 | y | 1419 | 1557 | 1743 | 2139 | 1809 | 1974 | 1689 | 1584 | 1440 | 1446 | 1440 | 1521 | 1467 | 1623 | 1731 | 1644 | 1716 | 1647 | 1800 |
| HGVF2775 | x | 1221 | 1038 | 1239 | 1719 | 1368 | 1773 | 1767 | 1947 | 2451 | 2766 | 3144 | 3174 | 3483 | 3420 | 3369 | 3348 | 3420 | 3339 | 2808 |
| HGVF2775 | y | 1434 | 1563 | 1773 | 2166 | 1836 | 2040 | 1713 | 1617 | 1494 | 1497 | 1509 | 1581 | 1566 | 1683 | 1773 | 1704 | 1758 | 1737 | 1857 |
| HGVF2777 | x | 621 | 441 | 690 | 1176 | 870 | 1194 | 1317 | 1380 | 2079 | 2415 | 2919 | 2940 | 3444 | 3408 | 3327 | 3288 | 3426 | 3252 | 2532 |
| HGVF2777 | y | 1602 | 1728 | 1980 | 2388 | 2007 | 2208 | 1878 | 1737 | 1569 | 1575 | 1563 | 1641 | 1623 | 1827 | 1950 | 1839 | 1947 | 1863 | 1992 |
| HGVF2779 | x | 714 | 504 | 714 | 1296 | 969 | 1371 | 1332 | 1521 | 2124 | 2481 | 2877 | 2910 | 3348 | 3381 | 3306 | 3264 | 3408 | 3201 | 2520 |
| HGVF2779 | y | 1614 | 1761 | 1971 | 2418 | 2094 | 2250 | 1908 | 1731 | 1608 | 1587 | 1584 | 1662 | 1629 | 1839 | 1974 | 1854 | 1947 | 1848 | 2034 |
| HGVM2513 | x | 364 | 140 | 376 | 1064 | 812 | 1092 | 1072 | 1260 | 1968 | 2364 | 2772 | 2820 | 3088 | 3300 | 3208 | 3172 | 3312 | 3132 | 2388 |
| HGVM2513 | y | 1556 | 1732 | 1892 | 2420 | 2080 | 2212 | 2000 | 1840 | 1596 | 1576 | 1552 | 1648 | 1640 | 1896 | 2040 | 1920 | 2028 | 1904 | 2052 |
| HGVM2515 | x | 582 | 426 | 660 | 1173 | 843 | 1197 | 1272 | 1389 | 2094 | 2367 | 2814 | 2883 | 3330 | 3366 | 3312 | 3267 | 3396 | 3207 | 2466 |
| HGVM2515 | y | 1578 | 1719 | 1941 | 2385 | 1995 | 2187 | 1875 | 1752 | 1569 | 1569 | 1527 | 1605 | 1566 | 1737 | 1875 | 1758 | 1839 | 1767 | 1998 |
| HGVM2517 | x | 765 | 564 | 786 | 1302 | 942 | 1359 | 1398 | 1629 | 2202 | 2574 | 2964 | 3021 | 3456 | 3510 | 3444 | 3408 | 3540 | 3381 | 2661 |
| HGVM2517 | y | 1593 | 1719 | 1983 | 2439 | 2043 | 2238 | 1887 | 1779 | 1629 | 1623 | 1611 | 1737 | 1644 | 1854 | 2001 | 1875 | 1968 | 1890 | 2055 |
| HGVM2519 | x | 957 | 798 | 993 | 1485 | 1179 | 1467 | 1500 | 1728 | 2325 | 2664 | 3090 | 3126 | 3531 | 3483 | 3387 | 3381 | 3468 | 3348 | 2739 |
| HGVM2519 | y | 1329 | 1476 | 1683 | 2133 | 1734 | 1977 | 1674 | 1527 | 1383 | 1395 | 1416 | 1506 | 1476 | 1641 | 1755 | 1647 | 1755 | 1662 | 1803 |
| HGVM2769 | x | 891 | 762 | 969 | 1398 | 1065 | 1380 | 1431 | 1572 | 2220 | 2511 | 3072 | 3096 | 3435 | 3390 | 3312 | 3285 | 3393 | 3267 | 2622 |
| HGVM2769 | y | 1392 | 1494 | 1728 | 2133 | 1749 | 1980 | 1659 | 1533 | 1374 | 1383 | 1377 | 1464 | 1425 | 1569 | 1671 | 1575 | 1671 | 1614 | 1770 |
| HGVM2781 | x | 727 | 469 | 679 | 1039 | 907 | 1234 | 1477 | 1840 | 2479 | 2773 | 3358 | 3436 | 3682 | 3661 | 3583 | 3568 | 3667 | 3562 | 2686 |
| HGVM2781 | y | 1440 | 1596 | 1803 | 2319 | 1872 | 2160 | 1668 | 1563 | 1422 | 1422 | 1422 | 1470 | 1446 | 1587 | 1707 | 1599 | 1686 | 1647 | 1791 |
| HGVM2783 | x | 610 | 427 | 604 | 940 | 835 | 1099 | 1423 | 1921 | 2524 | 2827 | 3451 | 3481 | 3763 | 3676 | 3586 | 3574 | 3682 | 3556 | 2749 |
| HGVM2783 | y | 1395 | 1524 | 1773 | 2262 | 1779 | 2046 | 1599 | 1512 | 1428 | 1443 | 1431 | 1506 | 1470 | 1620 | 1740 | 1644 | 1740 | 1671 | 1812 |
| HLVF2293 | x | 955 | 607 | 784 | 1195 | 946 | 1240 | 1471 | 1756 | 2512 | 2800 | 3283 | 3376 | 3601 | 3616 | 3553 | 3523 | 3622 | 3517 | 2662 |
| HLVF2293 | y | 1500 | 1605 | 1764 | 2328 | 1875 | 2064 | 1689 | 1581 | 1413 | 1413 | 1419 | 1479 | 1461 | 1578 | 1698 | 1599 | 1674 | 1644 | 1758 |
| HLVF2295 | x | 643 | 460 | 670 | 1126 | 874 | 1144 | 1393 | 1702 | 2554 | 2842 | 3370 | 3445 | 3628 | 3622 | 3550 | 3550 | 3640 | 3532 | 2794 |
| HLVF2295 | y | 1482 | 1659 | 1845 | 2289 | 1839 | 2115 | 1695 | 1566 | 1407 | 1401 | 1419 | 1449 | 1437 | 1581 | 1707 | 1608 | 1674 | 1641 | 1779 |
| HLVF2299 | x | 760 | 511 | 682 | 1117 | 919 | 1198 | 1492 | 1747 | 2497 | 2821 | 3424 | 3520 | 3703 | 3643 | 3577 | 3559 | 3649 | 3535 | 2701 |
| HLVF2299 | y | 1368 | 1512 | 1713 | 2232 | 1758 | 2025 | 1614 | 1551 | 1416 | 1392 | 1365 | 1416 | 1383 | 1521 | 1641 | 1536 | 1614 | 1584 | 1755 |
| HLVF2303 | x | 703 | 496 | 700 | 1165 | 931 | 1252 | 1519 | 1819 | 2569 | 2866 | 3412 | 3493 | 3676 | 3685 | 3640 | 3604 | 3718 | 3583 | 2722 |
| HLVF2303 | y | 1446 | 1572 | 1758 | 2286 | 1836 | 2088 | 1674 | 1569 | 1416 | 1395 | 1374 | 1434 | 1422 | 1551 | 1677 | 1572 | 1641 | 1611 | 1821 |
| HLVF2305 | x | 955 | 754 | 913 | 1297 | 1096 | 1300 | 1543 | 1777 | 2395 | 2635 | 3169 | 3208 | 3370 | 3331 | 3265 | 3250 | 3346 | 3229 | 2551 |
| HLVF2305 | y | 1359 | 1488 | 1686 | 2133 | 1734 | 1971 | 1641 | 1545 | 1416 | 1407 | 1407 | 1449 | 1437 | 1548 | 1647 | 1548 | 1629 | 1593 | 1749 |
| HLVF2307 | x | 787 | 592 | 784 | 1228 | 1027 | 1297 | 1570 | 1852 | 2605 | 2845 | 3331 | 3382 | 3601 | 3616 | 3550 | 3535 | 3619 | 3556 | 2800 |
| HLVF2307 | y | 1401 | 1551 | 1767 | 2262 | 1851 | 2004 | 1638 | 1560 | 1404 | 1413 | 1419 | 1479 | 1455 | 1578 | 1695 | 1599 | 1665 | 1638 | 1755 |
| HLVF2311 | x | 703 | 511 | 682 | 1132 | 910 | 1171 | 1420 | 1711 | 2554 | 2809 | 3367 | 3415 | 3643 | 3616 | 3550 | 3532 | 3625 | 3475 | 2677 |
| HLVF2311 | y | 1410 | 1533 | 1740 | 2277 | 1842 | 2037 | 1674 | 1560 | 1410 | 1395 | 1374 | 1437 | 1407 | 1536 | 1650 | 1554 | 1632 | 1593 | 1821 |
| HLVM2297 | x | 823 | 610 | 787 | 1246 | 1036 | 1297 | 1561 | 1780 | 2512 | 2788 | 3376 | 3418 | 3559 | 3631 | 3574 | 3550 | 3649 | 3520 | 2716 |
| HLVM2297 | y | 1452 | 1599 | 1809 | 2244 | 1827 | 2088 | 1677 | 1578 | 1407 | 1395 | 1413 | 1470 | 1449 | 1572 | 1692 | 1590 | 1662 | 1647 | 1812 |
| HLVM2301 | x | 1263 | 1091 | 1229 | 1691 | 1455 | 1701 | 1833 | 1959 | 2413 | 2583 | 2953 | 2931 | 3019 | 3061 | 3015 | 3007 | 3077 | 3025 | 2543 |
| HLVM2301 | y | 1425 | 1569 | 1727 | 2139 | 1789 | 1965 | 1669 | 1581 | 1449 | 1461 | 1467 | 1491 | 1495 | 1571 | 1665 | 1593 | 1643 | 1559 | 1689 |
| HLVM2309 | x | 1337 | 1173 | 1341 | 1855 | 1565 | 1847 | 1951 | 2103 | 2561 | 2733 | 3087 | 3093 | 3209 | 3213 | 3165 | 3147 | 3219 | 3159 | 2725 |
| HLVM2309 | y | 1545 | 1713 | 1855 | 2205 | 1925 | 2095 | 1777 | 1691 | 1553 | 1551 | 1547 | 1571 | 1565 | 1649 | 1737 | 1661 | 1717 | 1643 | 1823 |
| LWVF2505 | x | 1187 | 991 | 1135 | 1691 | 1347 | 1635 | 1791 | 1957 | 2461 | 2711 | 3127 | 3135 | 3251 | 3267 | 3209 | 3205 | 3271 | 3207 | 2675 |
| LWVF2505 | y | 1519 | 1673 | 1827 | 2241 | 1915 | 2129 | 1781 | 1677 | 1563 | 1561 | 1575 | 1615 | 1607 | 1711 | 1785 | 1719 | 1775 | 1703 | 1837 |
| LWVF2507 | x | 1203 | 1033 | 1149 | 1677 | 1379 | 1655 | 1763 | 1929 | 2383 | 2603 | 2971 | 2975 | 3087 | 3135 | 3075 | 3059 | 3135 | 3077 | 2563 |
| LWVF2507 | y | 1395 | 1547 | 1729 | 2163 | 1823 | 2005 | 1705 | 1605 | 1477 | 1489 | 1509 | 1529 | 1529 | 1635 | 1715 | 1647 | 1703 | 1609 | 1751 |
| LWVF2509 | x | 939 | 769 | 885 | 1491 | 1197 | 1439 | 1593 | 1773 | 2241 | 2379 | 2759 | 2771 | 2893 | 2925 | 2871 | 2879 | 2921 | 2889 | 2391 |
| LWVF2509 | y | 1579 | 1743 | 1871 | 2271 | 1965 | 2147 | 1859 | 1733 | 1573 | 1569 | 1559 | 1585 | 1577 | 1691 | 1761 | 1707 | 1755 | 1679 | 1849 |
| LWVF2511 | x | 1173 | 995 | 1117 | 1721 | 1385 | 1723 | 1885 | 2063 | 2511 | 2741 | 3119 | 3117 | 3235 | 3289 | 3239 | 3233 | 3303 | 3231 | 2711 |
| LWVF2511 | y | 1645 | 1813 | 1979 | 2389 | 2039 | 2261 | 1891 | 1791 | 1661 | 1669 | 1669 | 1699 | 1703 | 1787 | 1879 | 1803 | 1865 | 1783 | 1939 |
| LWVM2499 | x | 1085 | 875 | 992 | 1583 | 1322 | 1577 | 1745 | 1880 | 2459 | 2627 | 2975 | 3011 | 3131 | 3194 | 3149 | 3137 | 3212 | 3143 | 2642 |
| LWVM2499 | y | 1454 | 1583 | 1742 | 2255 | 1862 | 2063 | 1757 | 1664 | 1526 | 1523 | 1532 | 1565 | 1565 | 1646 | 1742 | 1670 | 1718 | 1637 | 1802 |
| LWVM2501 | x | 1193 | 1073 | 1195 | 1653 | 1455 | 1719 | 1791 | 1933 | 2393 | 2577 | 2995 | 3017 | 3187 | 3245 | 3203 | 3181 | 3259 | 3155 | 2613 |
| LWVM2501 | y | 1417 | 1519 | 1683 | 2033 | 1759 | 1885 | 1655 | 1553 | 1421 | 1425 | 1427 | 1447 | 1471 | 1553 | 1641 | 1573 | 1627 | 1579 | 1763 |
| LWVM2503 | x | 1167 | 1041 | 1155 | 1661 | 1443 | 1685 | 1745 | 1887 | 2463 | 2627 | 3051 | 3083 | 3229 | 3325 | 3277 | 3251 | 3341 | 3239 | 2659 |
| LWVM2503 | y | 1459 | 1593 | 1743 | 2077 | 1823 | 1881 | 1645 | 1523 | 1397 | 1387 | 1373 | 1389 | 1391 | 1501 | 1595 | 1509 | 1575 | 1523 | 1737 |
| MTVF2313 | x | 1257 | 1117 | 1213 | 1697 | 1507 | 1721 | 1821 | 1951 | 2425 | 2715 | 2961 | 3007 | 3183 | 3223 | 3209 | 3173 | 3269 | 3139 | 2607 |
| MTVF2313 | y | 1401 | 1519 | 1679 | 2023 | 1741 | 1833 | 1597 | 1495 | 1377 | 1369 | 1359 | 1379 | 1389 | 1473 | 1549 | 1497 | 1527 | 1471 | 1695 |
| MTVF2315 | x | 1133 | 987 | 1125 | 1571 | 1369 | 1593 | 1677 | 1863 | 2407 | 2703 | 2993 | 2997 | 3193 | 3227 | 3207 | 3159 | 3263 | 3119 | 2535 |
| MTVF2315 | y | 1411 | 1519 | 1707 | 2043 | 1807 | 1903 | 1659 | 1557 | 1431 | 1425 | 1427 | 1447 | 1459 | 1569 | 1667 | 1597 | 1641 | 1565 | 1779 |
| MTVF2317 | x | 1235 | 1115 | 1229 | 1699 | 1485 | 1707 | 1785 | 1971 | 2395 | 2563 | 2943 | 2975 | 3171 | 3211 | 3169 | 3143 | 3233 | 3105 | 2639 |
| MTVF2317 | y | 1423 | 1513 | 1671 | 2013 | 1789 | 1887 | 1651 | 1529 | 1399 | 1397 | 1403 | 1413 | 1421 | 1531 | 1611 | 1547 | 1601 | 1535 | 1707 |
| MTVF2319 | x | 1235 | 1107 | 1227 | 1667 | 1491 | 1701 | 1797 | 1991 | 2463 | 2613 | 2983 | 3019 | 3199 | 3251 | 3213 | 3183 | 3277 | 3145 | 2597 |
| MTVF2319 | y | 1425 | 1531 | 1689 | 2081 | 1765 | 1887 | 1653 | 1561 | 1425 | 1427 | 1437 | 1467 | 1483 | 1591 | 1677 | 1607 | 1667 | 1587 | 1767 |
| MTVF2321 | x | 1177 | 1073 | 1207 | 1669 | 1471 | 1691 | 1793 | 1957 | 2459 | 2657 | 3077 | 3125 | 3287 | 3333 | 3279 | 3257 | 3347 | 3221 | 2643 |
| MTVF2321 | y | 1397 | 1521 | 1679 | 2041 | 1773 | 1885 | 1649 | 1549 | 1427 | 1431 | 1443 | 1477 | 1475 | 1587 | 1685 | 1605 | 1663 | 1581 | 1777 |
| MTVF2323 | x | 1293 | 1117 | 1215 | 1667 | 1473 | 1683 | 1783 | 1937 | 2365 | 2525 | 2889 | 2935 | 3081 | 3113 | 3069 | 3047 | 3135 | 3023 | 2507 |
| MTVF2323 | y | 1395 | 1519 | 1655 | 2031 | 1763 | 1851 | 1643 | 1539 | 1409 | 1411 | 1409 | 1435 | 1443 | 1541 | 1619 | 1559 | 1607 | 1523 | 1723 |
| MTVF2325 | x | 967 | 859 | 991 | 1525 | 1297 | 1531 | 1595 | 1741 | 2231 | 2477 | 2825 | 2859 | 3021 | 3057 | 3013 | 2987 | 3071 | 2963 | 2405 |
| MTVF2325 | y | 1507 | 1615 | 1779 | 2075 | 1863 | 1961 | 1703 | 1599 | 1447 | 1441 | 1433 | 1459 | 1459 | 1565 | 1643 | 1575 | 1635 | 1579 | 1785 |
| MTVF2327 | x | 1097 | 965 | 1073 | 1565 | 1357 | 1579 | 1677 | 1841 | 2353 | 2547 | 2969 | 3013 | 3173 | 3231 | 3191 | 3159 | 3251 | 3113 | 2553 |
| MTVF2327 | y | 1381 | 1499 | 1663 | 2001 | 1755 | 1861 | 1631 | 1545 | 1391 | 1391 | 1389 | 1427 | 1439 | 1529 | 1619 | 1549 | 1597 | 1531 | 1757 |
| MTVF2329 | x | 1145 | 995 | 1097 | 1591 | 1411 | 1643 | 1753 | 1903 | 2415 | 2579 | 2953 | 3005 | 3157 | 3239 | 3187 | 3165 | 3249 | 3135 | 2569 |
| MTVF2329 | y | 1355 | 1477 | 1615 | 2025 | 1749 | 1869 | 1613 | 1517 | 1381 | 1383 | 1399 | 1431 | 1441 | 1547 | 1635 | 1567 | 1617 | 1541 | 1735 |
| MTVF2331 | x | 1449 | 1293 | 1379 | 1823 | 1625 | 1819 | 1921 | 2013 | 2409 | 2565 | 2879 | 2897 | 3043 | 3069 | 3019 | 3013 | 3073 | 3005 | 2535 |
| MTVF2331 | y | 1363 | 1499 | 1623 | 1905 | 1695 | 1759 | 1569 | 1505 | 1399 | 1397 | 1399 | 1423 | 1429 | 1511 | 1575 | 1525 | 1559 | 1501 | 1679 |
| MTVM2333 | x | 1327 | 1175 | 1275 | 1809 | 1579 | 1819 | 1905 | 2025 | 2483 | 2707 | 3131 | 3159 | 3331 | 3353 | 3307 | 3287 | 3371 | 3255 | 2715 |
| MTVM2333 | y | 1401 | 1511 | 1697 | 2027 | 1757 | 1883 | 1621 | 1517 | 1403 | 1401 | 1389 | 1425 | 1439 | 1525 | 1601 | 1535 | 1583 | 1517 | 1713 |
| MTVM2335 | x | 1405 | 1225 | 1315 | 1793 | 1587 | 1759 | 1869 | 2053 | 2487 | 2631 | 2975 | 3029 | 3193 | 3229 | 3175 | 3167 | 3237 | 3141 | 2647 |
| MTVM2335 | y | 1339 | 1459 | 1609 | 1961 | 1703 | 1801 | 1587 | 1505 | 1383 | 1381 | 1393 | 1427 | 1435 | 1529 | 1609 | 1547 | 1595 | 1525 | 1711 |
| MTVM2337 | x | 1133 | 997 | 1125 | 1575 | 1389 | 1609 | 1717 | 1881 | 2433 | 2631 | 3015 | 3059 | 3253 | 3325 | 3293 | 3257 | 3361 | 3195 | 2605 |
| MTVM2337 | y | 1375 | 1499 | 1681 | 2057 | 1747 | 1875 | 1613 | 1505 | 1399 | 1407 | 1417 | 1439 | 1453 | 1563 | 1673 | 1603 | 1657 | 1557 | 1767 |
| MTVM2339 | x | 1131 | 991 | 1137 | 1603 | 1401 | 1597 | 1725 | 1911 | 2423 | 2601 | 2957 | 2997 | 3169 | 3265 | 3229 | 3197 | 3295 | 3145 | 2617 |
| MTVM2339 | y | 1433 | 1527 | 1689 | 2041 | 1773 | 1883 | 1679 | 1549 | 1411 | 1409 | 1415 | 1437 | 1457 | 1557 | 1645 | 1581 | 1633 | 1557 | 1759 |
| MTVM2341 | x | 1269 | 1131 | 1247 | 1733 | 1545 | 1753 | 1859 | 2031 | 2515 | 2689 | 3083 | 3139 | 3331 | 3345 | 3307 | 3287 | 3363 | 3259 | 2689 |
| MTVM2341 | y | 1377 | 1479 | 1661 | 2053 | 1753 | 1899 | 1665 | 1547 | 1419 | 1427 | 1423 | 1461 | 1463 | 1571 | 1653 | 1589 | 1639 | 1565 | 1775 |
| MTVM2343 | x | 1451 | 1279 | 1349 | 1791 | 1615 | 1777 | 1879 | 2001 | 2377 | 2511 | 2873 | 2891 | 3025 | 3055 | 3003 | 2991 | 3065 | 2971 | 2489 |
| MTVM2343 | y | 1407 | 1511 | 1629 | 1943 | 1711 | 1807 | 1615 | 1525 | 1397 | 1399 | 1403 | 1423 | 1431 | 1521 | 1603 | 1529 | 1585 | 1505 | 1699 |
| MTVM2345 | x | 1491 | 1297 | 1381 | 1829 | 1635 | 1807 | 1905 | 1977 | 2365 | 2539 | 2833 | 2851 | 2989 | 3021 | 2981 | 2961 | 3033 | 2961 | 2493 |
| MTVM2345 | y | 1413 | 1557 | 1673 | 1941 | 1717 | 1803 | 1599 | 1537 | 1421 | 1425 | 1421 | 1441 | 1449 | 1517 | 1587 | 1535 | 1583 | 1511 | 1701 |
| MTVM2347 | x | 1225 | 1057 | 1189 | 1661 | 1463 | 1671 | 1745 | 1901 | 2381 | 2571 | 2949 | 2993 | 3163 | 3201 | 3151 | 3127 | 3215 | 3119 | 2561 |
| MTVM2347 | y | 1431 | 1547 | 1693 | 2037 | 1779 | 1891 | 1649 | 1551 | 1401 | 1393 | 1391 | 1419 | 1429 | 1537 | 1633 | 1553 | 1607 | 1521 | 1729 |
| MTVM2349 | x | 1204 | 1052 | 1232 | 1714 | 1446 | 1740 | 1856 | 2006 | 2390 | 2592 | 2996 | 3036 | 3186 | 3160 | 3126 | 3104 | 3174 | 3076 | 2628 |
| MTVM2349 | y | 1424 | 1582 | 1752 | 2060 | 1754 | 2008 | 1654 | 1572 | 1440 | 1432 | 1436 | 1478 | 1466 | 1534 | 1594 | 1550 | 1580 | 1566 | 1692 |
| MTVM2351 | x | 1054 | 894 | 1098 | 1666 | 1326 | 1760 | 1790 | 1934 | 2430 | 2640 | 3100 | 3158 | 3294 | 3284 | 3234 | 3200 | 3298 | 3206 | 2728 |
| MTVM2351 | y | 1416 | 1580 | 1780 | 2100 | 1820 | 1962 | 1642 | 1552 | 1404 | 1396 | 1404 | 1452 | 1438 | 1502 | 1572 | 1512 | 1570 | 1550 | 1696 |
| PHVF2700 | x | 1002 | 830 | 994 | 1558 | 1232 | 1518 | 1656 | 1754 | 2152 | 2442 | 2888 | 2932 | 3066 | 3054 | 3000 | 2984 | 3054 | 2948 | 2490 |
| PHVF2700 | y | 1388 | 1526 | 1760 | 2082 | 1788 | 2000 | 1628 | 1572 | 1412 | 1410 | 1408 | 1450 | 1432 | 1514 | 1590 | 1532 | 1578 | 1558 | 1676 |
| PHVF2702 | x | 1044 | 885 | 1026 | 1485 | 1272 | 1560 | 1728 | 1815 | 2262 | 2565 | 2961 | 3012 | 3138 | 3129 | 3090 | 3081 | 3147 | 3030 | 2523 |
| PHVF2702 | y | 1419 | 1575 | 1779 | 2106 | 1794 | 1995 | 1647 | 1584 | 1407 | 1401 | 1398 | 1437 | 1410 | 1482 | 1554 | 1494 | 1548 | 1524 | 1659 |
| PHVF2704 | x | 1090 | 960 | 1084 | 1582 | 1292 | 1588 | 1664 | 1768 | 2132 | 2274 | 2726 | 2768 | 2876 | 2902 | 2870 | 2850 | 2916 | 2814 | 2386 |
| PHVF2704 | y | 1394 | 1528 | 1716 | 2000 | 1742 | 1924 | 1624 | 1576 | 1412 | 1416 | 1412 | 1458 | 1436 | 1496 | 1550 | 1506 | 1544 | 1522 | 1658 |
| PHVF2708 | x | 742 | 574 | 752 | 1298 | 954 | 1284 | 1398 | 1458 | 1950 | 2166 | 2616 | 2654 | 2786 | 2774 | 2746 | 2722 | 2794 | 2680 | 2174 |
| PHVF2708 | y | 1400 | 1574 | 1766 | 2046 | 1774 | 1978 | 1660 | 1572 | 1412 | 1410 | 1414 | 1454 | 1432 | 1514 | 1584 | 1522 | 1572 | 1534 | 1680 |
| PHVF2718 | x | 960 | 798 | 984 | 1490 | 1160 | 1494 | 1554 | 1664 | 2098 | 2342 | 2726 | 2766 | 2912 | 2918 | 2890 | 2866 | 2938 | 2822 | 2388 |
| PHVF2718 | y | 1504 | 1668 | 1844 | 2122 | 1868 | 2032 | 1736 | 1660 | 1498 | 1484 | 1476 | 1504 | 1490 | 1570 | 1632 | 1580 | 1622 | 1610 | 1740 |
| PHVF2724 | x | 832 | 692 | 894 | 1410 | 1062 | 1406 | 1576 | 1696 | 2078 | 2422 | 2848 | 2892 | 3066 | 3036 | 3000 | 2990 | 3060 | 2966 | 2460 |
| PHVF2724 | y | 1536 | 1706 | 1882 | 2280 | 1906 | 2174 | 1796 | 1718 | 1546 | 1550 | 1544 | 1592 | 1560 | 1656 | 1734 | 1674 | 1710 | 1702 | 1878 |
| PHVF2726 | x | 1126 | 964 | 1130 | 1598 | 1342 | 1620 | 1782 | 1856 | 2282 | 2604 | 2920 | 2960 | 3112 | 3102 | 3056 | 3042 | 3112 | 3018 | 2584 |
| PHVF2726 | y | 1422 | 1574 | 1782 | 2136 | 1808 | 2050 | 1678 | 1608 | 1420 | 1414 | 1416 | 1464 | 1438 | 1506 | 1576 | 1524 | 1568 | 1550 | 1690 |
| PHVF2728 | x | 836 | 698 | 898 | 1350 | 1062 | 1380 | 1538 | 1650 | 2038 | 2382 | 2762 | 2812 | 2968 | 2940 | 2888 | 2876 | 2940 | 2832 | 2390 |
| PHVF2728 | y | 1600 | 1786 | 1944 | 2266 | 1980 | 2190 | 1854 | 1750 | 1566 | 1550 | 1534 | 1582 | 1556 | 1628 | 1692 | 1640 | 1682 | 1666 | 1840 |
| PHVF2730 | x | 1294 | 1142 | 1282 | 1770 | 1496 | 1818 | 1906 | 1994 | 2428 | 2648 | 2988 | 3036 | 3136 | 3170 | 3136 | 3114 | 3180 | 3106 | 2666 |
| PHVF2730 | y | 1378 | 1540 | 1730 | 2040 | 1734 | 1952 | 1602 | 1544 | 1382 | 1384 | 1382 | 1416 | 1410 | 1460 | 1526 | 1476 | 1512 | 1494 | 1634 |
| PHVF2732 | x | 867 | 696 | 900 | 1362 | 1092 | 1443 | 1572 | 1704 | 2151 | 2361 | 2919 | 3015 | 3141 | 3141 | 3090 | 3063 | 3159 | 3042 | 2553 |
| PHVF2732 | y | 1581 | 1767 | 1977 | 2319 | 1965 | 2172 | 1809 | 1713 | 1521 | 1503 | 1485 | 1521 | 1506 | 1611 | 1683 | 1611 | 1680 | 1665 | 1806 |
| PHVM2698 | x | 996 | 837 | 1035 | 1623 | 1221 | 1608 | 1698 | 1821 | 2286 | 2502 | 2949 | 3003 | 3147 | 3147 | 3108 | 3096 | 3153 | 3060 | 2538 |
| PHVM2698 | y | 1389 | 1572 | 1788 | 2085 | 1782 | 1980 | 1590 | 1506 | 1371 | 1368 | 1377 | 1422 | 1401 | 1464 | 1524 | 1476 | 1524 | 1503 | 1632 |
| PHVM2706 | x | 1075 | 909 | 1039 | 1531 | 1259 | 1563 | 1691 | 1789 | 2231 | 2491 | 2837 | 2895 | 3023 | 2999 | 2955 | 2953 | 3013 | 2923 | 2449 |
| PHVM2706 | y | 1532 | 1696 | 1868 | 2218 | 1926 | 2114 | 1794 | 1730 | 1562 | 1560 | 1574 | 1610 | 1592 | 1654 | 1714 | 1668 | 1710 | 1690 | 1832 |
| PHVM2710 | x | 1073 | 945 | 1161 | 1569 | 1301 | 1659 | 1731 | 1909 | 2325 | 2647 | 3067 | 3133 | 3275 | 3241 | 3183 | 3197 | 3251 | 3133 | 2667 |
| PHVM2710 | y | 1386 | 1542 | 1752 | 2112 | 1800 | 2032 | 1654 | 1596 | 1436 | 1440 | 1458 | 1492 | 1498 | 1580 | 1658 | 1594 | 1640 | 1578 | 1738 |
| PHVM2712 | x | 1036 | 888 | 1032 | 1524 | 1236 | 1540 | 1698 | 1816 | 2240 | 2458 | 2876 | 2930 | 3064 | 3068 | 3018 | 3002 | 3076 | 2974 | 2498 |
| PHVM2712 | y | 1432 | 1576 | 1786 | 2124 | 1802 | 2028 | 1654 | 1596 | 1426 | 1418 | 1414 | 1458 | 1444 | 1520 | 1590 | 1532 | 1582 | 1536 | 1720 |
| PHVM2714 | x | 1132 | 956 | 1108 | 1630 | 1296 | 1610 | 1788 | 1910 | 2362 | 2662 | 3040 | 3128 | 3292 | 3284 | 3248 | 3232 | 3292 | 3192 | 2718 |
| PHVM2714 | y | 1554 | 1722 | 1924 | 2238 | 1940 | 2160 | 1764 | 1706 | 1562 | 1562 | 1558 | 1614 | 1588 | 1656 | 1714 | 1666 | 1708 | 1692 | 1814 |
| PHVM2716 | x | 956 | 794 | 954 | 1544 | 1190 | 1538 | 1678 | 1714 | 2186 | 2484 | 2892 | 2952 | 3072 | 3040 | 3004 | 2978 | 3056 | 2950 | 2490 |
| PHVM2716 | y | 1576 | 1756 | 1940 | 2262 | 1948 | 2168 | 1812 | 1724 | 1566 | 1558 | 1550 | 1602 | 1564 | 1648 | 1716 | 1656 | 1706 | 1688 | 1846 |
| PHVM2720 | x | 878 | 734 | 908 | 1392 | 1136 | 1466 | 1574 | 1704 | 2092 | 2410 | 2802 | 2832 | 2956 | 2954 | 2914 | 2904 | 2962 | 2868 | 2406 |
| PHVM2720 | y | 1426 | 1582 | 1780 | 2154 | 1828 | 2026 | 1678 | 1598 | 1420 | 1422 | 1416 | 1464 | 1436 | 1520 | 1590 | 1528 | 1582 | 1546 | 1712 |
| PHVM2722 | x | 714 | 562 | 762 | 1226 | 956 | 1268 | 1432 | 1506 | 1978 | 2296 | 2756 | 2798 | 2986 | 2950 | 2928 | 2900 | 2980 | 2846 | 2344 |
| PHVM2722 | y | 1386 | 1548 | 1740 | 2104 | 1758 | 2000 | 1670 | 1584 | 1430 | 1426 | 1432 | 1488 | 1460 | 1550 | 1630 | 1572 | 1606 | 1582 | 1726 |
| PHVM2734 | x | 632 | 518 | 621 | 848 | 858 | 962 | 998 | 1089 | 1450 | 1612 | 2010 | 2156 | 2262 | 2239 | 2195 | 2180 | 2238 | 2168 | 1638 |
| PHVM2734 | y | 1090 | 1179 | 1298 | 1497 | 1337 | 1398 | 1273 | 1196 | 1100 | 1106 | 1102 | 1166 | 1138 | 1247 | 1314 | 1254 | 1307 | 1269 | 1309 |
| PHVM2736 | x | 1208 | 1043 | 1328 | 1976 | 1877 | 2213 | 2252 | 2543 | 3397 | 4009 | 5011 | 5302 | 5632 | 5518 | 5359 | 5341 | 5488 | 5299 | 3853 |
| PHVM2736 | y | 2020 | 2221 | 2335 | 2767 | 2329 | 2401 | 2224 | 2022 | 1983 | 1947 | 1932 | 2079 | 2010 | 2292 | 2454 | 2310 | 2445 | 2400 | 2538 |
| FEEVM | x | 1048 | 864 | 1038 | 1504 | 1210 | 1528 | 1608 | 1702 | 2146 | 2400 | 2704 | 2752 | 3042 | 2970 | 2928 | 2896 | 2984 | 2898 | 2358 |
| FEEVM | y | 1497 | 1655 | 1837 | 2191 | 1859 | 2063 | 1731 | 1641 | 1525 | 1527 | 1531 | 1577 | 1555 | 1663 | 1751 | 1685 | 1727 | 1701 | 1831 |
| FEEVF | x | 702 | 552 | 747 | 1257 | 921 | 1224 | 1317 | 1422 | 1944 | 2256 | 2661 | 2748 | 3075 | 3033 | 2976 | 2943 | 3054 | 2919 | 2247 |
| FEEVF | y | 1599 | 1716 | 1923 | 2307 | 1995 | 2181 | 1872 | 1758 | 1590 | 1602 | 1593 | 1650 | 1638 | 1785 | 1893 | 1806 | 1872 | 1788 | 1932 |

Specimens are colour coded by species. Colours correspond to those seen in figure 5.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Appendix 2d: T-test between skull size and mating system** | | | | | | | | | |
|  | | | | | | | | | |
| Family | Taxon | Avg. Skl. Length (mm) | Std. Dev. (mm) | Avg. Skl. Length (Male) (mm) | Std. Dev. (Male) (mm) | Avg. Skl. Length (Female) (mm) | Std. Dev. (Female) (mm) | T-test (p value) | Mating System |
| Otariidae | *Arctocephalus* | 206.89 | 30.80 | 244.33 | 9.29 | 188.17 | 14.86 | 3.65E-04 | Harem-based, high polygyny |
| Otariidae | *Callorhinus* | 215.65 | 29.07 | 243.30 | 8.51 | 188.00 | 3.56 | 2.44E-10 | Harem-based, high polygyny |
| Otariidae | *Eumetopias* | 355.85 | 41.49 | 395.90 | 5.24 | 315.80 | 6.56 | 2.62E-16 | Harem-based, high polygyny |
| Phocidae | *Leptonychotes* | 255.25 | 19.02 | 255.25 | 24.78 | 255.25 | 15.17 | 1.00E+00 | No harem, low polygyny |
| Phocidae | *Hydrurga* | 384.90 | 22.11 | 386.67 | 7.57 | 384.14 | 26.68 | 8.24E-01 | No harem, low polygyny |
| Phocidae | *Cystophora* | 250.70 | 19.83 | 265.30 | 14.51 | 236.10 | 12.10 | 1.29E-04 | No harem, low polygyny |
| Phocidae | *Halichoerus* | 273.00 | 26.28 | 296.90 | 7.98 | 252.08 | 15.98 | 2.82E-05 | Harem-based, high polygyny |
| Phocidae | *Erignathus* | 224.09 | 10.95 | 227.53 | 7.41 | 220.65 | 13.31 | 2.62E-01 | No harem, low polygyny |
| Phocidae | *Pusa* | 181.27 | 11.95 | 182.95 | 12.25 | 179.58 | 12.04 | 5.42E-01 | No harem, low polygyny |
| Phocidae | *Monachus* | 259.55 | 19.37 | 254.50 | 23.74 | 264.60 | 13.11 | 2.58E-01 | No harem, low polygyny |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Appendix 2e: Principal Component Scores** | | | | | |
| Dorsal Scores | | | | | |
| Specimen # | Taxon | PC. 1 | PC. 2 | PC. 3 | PC. 4 |
| AADF2398 | *Arctocephalus australis* | 385.58 | -62.19 | -23.47 | -138.08 |
| AADF2400 | *Arctocephalus australis* | 351.03 | -22.10 | -23.78 | -117.81 |
| AADF2402 | *Arctocephalus australis* | 283.41 | -40.78 | -75.94 | -110.54 |
| AADF2404 | *Arctocephalus australis* | 292.39 | 10.23 | 14.16 | -94.40 |
| AADF2406 | *Arctocephalus australis* | 342.91 | 13.58 | 20.20 | -77.82 |
| AADF2408 | *Arctocephalus australis* | 335.28 | -4.18 | -38.52 | -100.60 |
| AADM2392 | *Arctocephalus australis* | 272.22 | -40.07 | -90.67 | -37.00 |
| AADM2394 | *Arctocephalus australis* | 278.32 | -29.02 | -54.89 | -40.07 |
| AADM2396 | *Arctocephalus australis* | 272.82 | -90.59 | -79.42 | -45.01 |
| CCDF2476 | *Cystophora cristata* | -194.10 | -266.42 | 91.40 | -26.57 |
| CCDF2478 | *Cystophora cristata* | -414.41 | -328.71 | 0.74 | -63.06 |
| CCDF2480 | *Cystophora cristata* | -323.70 | -365.47 | -76.22 | -76.00 |
| CCDF2482 | *Cystophora cristata* | -312.14 | -321.32 | -41.47 | -15.19 |
| CCDF2484 | *Cystophora cristata* | -287.44 | -289.62 | 9.72 | -48.69 |
| CCDF2486 | *Cystophora cristata* | -322.00 | -303.12 | -51.62 | -31.93 |
| CCDF2488 | *Cystophora cristata* | -281.20 | -305.59 | -57.27 | -127.52 |
| CCDF2490 | *Cystophora cristata* | -343.37 | -235.02 | 25.74 | -2.91 |
| CCDF2492 | *Cystophora cristata* | -228.66 | -236.19 | -25.86 | -47.57 |
| CCDF2494 | *Cystophora cristata* | -356.97 | -205.49 | -33.08 | -65.80 |
| CCDM2456 | *Cystophora cristata* | -400.45 | -351.73 | -108.33 | 8.22 |
| CCDM2458 | *Cystophora cristata* | -452.33 | -250.67 | -108.94 | 48.29 |
| CCDM2460 | *Cystophora cristata* | -528.14 | -158.04 | -116.55 | 41.13 |
| CCDM2462 | *Cystophora cristata* | -403.39 | -236.29 | -134.33 | 68.38 |
| CCDM2464 | *Cystophora cristata* | -424.06 | -253.60 | -34.68 | 0.64 |
| CCDM2466 | *Cystophora cristata* | -465.34 | -226.26 | -97.42 | 36.16 |
| CCDM2468 | *Cystophora cristata* | -323.58 | -213.31 | 58.32 | 7.39 |
| CCDM2470 | *Cystophora cristata* | -275.97 | -292.50 | -11.65 | -31.62 |
| CCDM2472 | *Cystophora cristata* | -363.35 | -277.38 | 2.42 | 47.42 |
| CCDM2474 | *Cystophora cristata* | -476.73 | -291.27 | -79.25 | -25.24 |
| CUDF2372 | *Callorhinus ursinus* | 357.82 | -18.44 | 2.20 | -130.96 |
| CUDF2374 | *Callorhinus ursinus* | 346.19 | -44.55 | -41.41 | -98.44 |
| CUDF2376 | *Callorhinus ursinus* | 359.19 | 34.82 | 36.70 | -68.23 |
| CUDF2378 | *Callorhinus ursinus* | 323.03 | 27.90 | -58.20 | -53.19 |
| CUDF2380 | *Callorhinus ursinus* | 323.58 | -13.58 | -66.89 | -60.44 |
| CUDF2382 | *Callorhinus ursinus* | 316.83 | -18.94 | -26.08 | -102.93 |
| CUDF2384 | *Callorhinus ursinus* | 307.86 | -19.86 | -18.65 | -133.41 |
| CUDF2386 | *Callorhinus ursinus* | 295.19 | -43.83 | 24.53 | -99.46 |
| CUDF2388 | *Callorhinus ursinus* | 271.33 | 11.16 | -56.73 | -145.11 |
| CUDF2390 | *Callorhinus ursinus* | 327.12 | -87.22 | -12.81 | -113.70 |
| CUDM2352 | *Callorhinus ursinus* | 363.47 | 67.51 | -16.30 | -1.63 |
| CUDM2354 | *Callorhinus ursinus* | 399.06 | -26.12 | -29.20 | -33.42 |
| CUDM2356 | *Callorhinus ursinus* | 378.65 | -16.49 | -55.67 | -14.12 |
| CUDM2358 | *Callorhinus ursinus* | 415.53 | 8.84 | -78.50 | -57.64 |
| CUDM2360 | *Callorhinus ursinus* | 437.13 | 39.03 | -48.37 | -39.88 |
| CUDM2362 | *Callorhinus ursinus* | 386.54 | -14.19 | -45.85 | -29.13 |
| CUDM2364 | *Callorhinus ursinus* | 379.08 | -0.85 | -56.23 | -115.09 |
| CUDM2366 | *Callorhinus ursinus* | 387.26 | -33.24 | -27.24 | -33.71 |
| CUDM2368 | *Callorhinus ursinus* | 361.54 | 10.44 | -42.51 | 36.15 |
| CUDM2370 | *Callorhinus ursinus* | 427.60 | 47.64 | -58.39 | -11.86 |
| EBDF2742 | *Erignathus barbatus* | -121.44 | 208.10 | -90.80 | -36.98 |
| EBDF2744 | *Erignathus barbatus* | -78.27 | 215.97 | -117.04 | 3.20 |
| EBDF2746 | *Erignathus barbatus* | -126.40 | 196.27 | -217.59 | 2.23 |
| EBDF2754 | *Erignathus barbatus* | -49.82 | 138.77 | -186.33 | -28.93 |
| EBDF2756 | *Erignathus barbatus* | -37.07 | 221.27 | -185.94 | 22.02 |
| EBDF2759 | *Erignathus barbatus* | -129.19 | 174.30 | -190.17 | -45.48 |
| EBDF2763 | *Erignathus barbatus* | -92.18 | 197.05 | -162.27 | -8.32 |
| EBDM2740 | *Erignathus barbatus* | -11.68 | 227.75 | -175.28 | -73.62 |
| EBDM2748 | *Erignathus barbatus* | -69.88 | 187.05 | -169.46 | 16.60 |
| EBDM2750 | *Erignathus barbatus* | -168.13 | 205.99 | -253.33 | 9.97 |
| EBDM2752 | *Erignathus barbatus* | -145.68 | 267.77 | -161.57 | -16.37 |
| EBDM2758 | *Erignathus barbatus* | -104.96 | 195.94 | -188.53 | 45.55 |
| EBDM2761 | *Erignathus barbatus* | -171.42 | 133.32 | -201.58 | 12.52 |
| EBDM2765 | *Erignathus barbatus* | -192.17 | 247.04 | -251.60 | -49.12 |
| EJDF2433 | *Eumetopias jubatus* | 280.55 | -166.92 | -27.30 | 108.67 |
| EJDF2435 | *Eumetopias jubatus* | 291.97 | -85.51 | -57.05 | 57.23 |
| EJDF2437 | *Eumetopias jubatus* | 331.32 | -42.55 | -36.55 | 64.94 |
| EJDF2439 | *Eumetopias jubatus* | 361.89 | -72.91 | -28.84 | 67.21 |
| EJDF2441 | *Eumetopias jubatus* | 308.19 | -122.62 | 30.56 | 115.60 |
| EJDF2443 | *Eumetopias jubatus* | 348.45 | -99.68 | -5.04 | 83.79 |
| EJDF2445 | *Eumetopias jubatus* | 333.98 | -169.70 | 48.98 | 95.31 |
| EJDF2447 | *Eumetopias jubatus* | 372.41 | -80.16 | -19.83 | 104.71 |
| EJDF2449 | *Eumetopias jubatus* | 331.64 | -118.82 | 11.39 | 76.77 |
| EJDF2451 | *Eumetopias jubatus* | 364.31 | -133.44 | 55.99 | 101.25 |
| EJDM2410 | *Eumetopias jubatus* | 332.18 | -108.14 | 8.87 | 99.16 |
| EJDM2412 | *Eumetopias jubatus* | 353.80 | -149.98 | 27.47 | 136.57 |
| EJDM2414 | *Eumetopias jubatus* | 348.91 | -217.43 | 34.38 | 121.79 |
| EJDM2416 | *Eumetopias jubatus* | 302.90 | -184.23 | 30.92 | 129.40 |
| EJDM2418 | *Eumetopias jubatus* | 252.41 | -176.20 | -25.21 | 111.36 |
| EJDM2420 | *Eumetopias jubatus* | 267.79 | -188.18 | -33.46 | 123.83 |
| EJDM2422 | *Eumetopias jubatus* | 352.66 | -190.71 | 37.32 | 151.92 |
| EJDM2424 | *Eumetopias jubatus* | 342.50 | -177.88 | -31.25 | 79.32 |
| EJDM2426 | *Eumetopias jubatus* | 291.37 | -146.30 | 7.61 | 108.98 |
| EJDM2428 | *Eumetopias jubatus* | 330.54 | -135.22 | 3.05 | 151.19 |
| HGDF2520 | *Halichoerus grypus* | -124.42 | 45.34 | -80.82 | 3.20 |
| HGDF2522 | *Halichoerus grypus* | -223.33 | 175.26 | -154.44 | 75.10 |
| HGDF2524 | *Halichoerus grypus* | -193.61 | 84.10 | -122.86 | 64.77 |
| HGDF2770 | *Halichoerus grypus* | -74.52 | 45.14 | -44.51 | 123.00 |
| HGDF2772 | *Halichoerus grypus* | -23.91 | 120.25 | -26.75 | 58.46 |
| HGDF2774 | *Halichoerus grypus* | -125.05 | 62.85 | -52.95 | 96.79 |
| HGDF2776 | *Halichoerus grypus* | -165.86 | 9.10 | -39.67 | 127.40 |
| HGDF2778 | *Halichoerus grypus* | -67.00 | 80.30 | -102.73 | 44.23 |
| HGDM2512 | *Halichoerus grypus* | -268.33 | 38.81 | 4.92 | 231.48 |
| HGDM2514 | *Halichoerus grypus* | -264.68 | 57.57 | -83.74 | 147.42 |
| HGDM2516 | *Halichoerus grypus* | -265.53 | 122.26 | -118.95 | 46.50 |
| HGDM2518 | *Halichoerus grypus* | -210.21 | 14.61 | -83.21 | 109.73 |
| HGDM2768 | *Halichoerus grypus* | -274.14 | -2.87 | -49.68 | 175.05 |
| HGDM2780 | *Halichoerus grypus* | -104.13 | 43.49 | -68.10 | 104.29 |
| HGDM2782 | *Halichoerus grypus* | -82.91 | 0.76 | -73.61 | 142.86 |
| HLDF2291 | *Hydrurga leptonyx* | -151.96 | 213.19 | 103.08 | 188.79 |
| HLDF2294 | *Hydrurga leptonyx* | -41.95 | 203.23 | 113.78 | 159.67 |
| HLDF2298 | *Hydrurga leptonyx* | 29.64 | 164.80 | 108.35 | 223.49 |
| HLDF2302 | *Hydrurga leptonyx* | -93.10 | 219.05 | 132.79 | 151.92 |
| HLDF2304 | *Hydrurga leptonyx* | -37.38 | 241.87 | 129.06 | 184.11 |
| HLDF2306 | *Hydrurga leptonyx* | -100.91 | 242.41 | 108.30 | 201.28 |
| HLDF2310 | *Hydrurga leptonyx* | -107.67 | 91.10 | 102.81 | 90.60 |
| HLDM2296 | *Hydrurga leptonyx* | -54.70 | 69.37 | 174.31 | 210.29 |
| HLDM2300 | *Hydrurga leptonyx* | -110.68 | 170.28 | 128.73 | 163.54 |
| HLDM2308 | *Hydrurga leptonyx* | -58.04 | 147.75 | 135.75 | 167.43 |
| LWDF2504 | *Leptonychotes weddelli* | -64.02 | -136.40 | 160.27 | -74.73 |
| LWDF2506 | *Leptonychotes weddelli* | -31.15 | -132.69 | 108.14 | -39.36 |
| LWDF2508 | *Leptonychotes weddelli* | -1.72 | -66.26 | 187.36 | 53.66 |
| LWDF2510 | *Leptonychotes weddelli* | -90.96 | -122.79 | 205.34 | 12.39 |
| LWDM2498 | *Leptonychotes weddelli* | -45.99 | -140.87 | 150.77 | 4.18 |
| LWDM2500 | *Leptonychotes weddelli* | -33.36 | -133.61 | 175.02 | -14.70 |
| LWDM2502 | *Leptonychotes weddelli* | 4.09 | -132.00 | 106.39 | -80.10 |
| MTDF2312 | *Monachus tropicalus* | -127.58 | 139.04 | 119.49 | -46.81 |
| MTDF2314 | *Monachus tropicalus* | -61.61 | 219.40 | 51.77 | -40.79 |
| MTDF2316 | *Monachus tropicalus* | -43.94 | 160.43 | 53.80 | -30.35 |
| MTDF2318 | *Monachus tropicalus* | 46.55 | 163.02 | 38.17 | -111.04 |
| MTDF2320 | *Monachus tropicalus* | -41.46 | 76.37 | 111.22 | 21.45 |
| MTDF2322 | *Monachus tropicalus* | -86.64 | 116.45 | 90.21 | -24.12 |
| MTDF2324 | *Monachus tropicalus* | -62.97 | 184.21 | 74.99 | -33.85 |
| MTDF2326 | *Monachus tropicalus* | -52.87 | 113.30 | 141.02 | -17.29 |
| MTDF2328 | *Monachus tropicalus* | -56.80 | 85.80 | 129.85 | -52.80 |
| MTDF2330 | *Monachus tropicalus* | -70.35 | 136.01 | 98.64 | -1.49 |
| MTDM2332 | *Monachus tropicalus* | -93.61 | 116.09 | 118.67 | -34.10 |
| MTDM2334 | *Monachus tropicalus* | -20.34 | 93.86 | 70.58 | -1.44 |
| MTDM2336 | *Monachus tropicalus* | -84.71 | 211.64 | 62.53 | -17.12 |
| MTDM2338 | *Monachus tropicalus* | -95.48 | 110.96 | 104.49 | 19.87 |
| MTDM2340 | *Monachus tropicalus* | -88.22 | 183.20 | -37.98 | -67.99 |
| MTDM2342 | *Monachus tropicalus* | -110.24 | 73.03 | 105.83 | 10.90 |
| MTDM2344 | *Monachus tropicalus* | -63.07 | 160.39 | 106.46 | -22.87 |
| MTDM2346 | *Monachus tropicalus* | -37.10 | 70.24 | -6.56 | -46.23 |
| MTDM2348 | *Monachus tropicalus* | -40.43 | 69.20 | -47.84 | -46.57 |
| MTDM2350 | *Monachus tropicalus* | -113.90 | 143.97 | 21.45 | -59.13 |
| PHDF2699 | *Pusa hispida* | -32.32 | -13.42 | 32.53 | -189.14 |
| PHDF2701 | *Pusa hispida* | -178.61 | 76.18 | 45.97 | -149.72 |
| PHDF2703 | *Pusa hispida* | -155.33 | 54.76 | -4.79 | -97.83 |
| PHDF2707 | *Pusa hispida* | -45.74 | 54.17 | 33.21 | -102.25 |
| PHDF2717 | *Pusa hispida* | -133.68 | 8.42 | 132.83 | -168.29 |
| PHDF2723 | *Pusa hispida* | -299.85 | 57.47 | 100.87 | -31.29 |
| PHDF2725 | *Pusa hispida* | -210.04 | 45.18 | 48.55 | -94.61 |
| PHDF2727 | *Pusa hispida* | -165.64 | 82.21 | 62.81 | -63.02 |
| PHDF2729 | *Pusa hispida* | -175.11 | 58.18 | 113.96 | -116.72 |
| PHDF2731 | *Pusa hispida* | -192.33 | 89.49 | 81.03 | -88.10 |
| PHDM2697 | *Pusa hispida* | -75.21 | 49.76 | 47.19 | -103.22 |
| PHDM2705 | *Pusa hispida* | -199.83 | 13.31 | 30.01 | -110.67 |
| PHDM2709 | *Pusa hispida* | -150.16 | 123.92 | 110.89 | -125.92 |
| PHDM2711 | *Pusa hispida* | -90.76 | 44.76 | 173.85 | -107.27 |
| PHDM2713 | *Pusa hispida* | -138.74 | 97.35 | 63.70 | -123.59 |
| PHDM2715 | *Pusa hispida* | -231.69 | 79.89 | 32.88 | -80.55 |
| PHDM2719 | *Pusa hispida* | -114.83 | 113.33 | 129.36 | -63.84 |
| PHDM2721 | *Pusa hispida* | -169.03 | 85.02 | 135.66 | -89.94 |
| PHDM2733 | *Pusa hispida* | -173.44 | 65.08 | 155.73 | -101.96 |
| PHDM2735 | *Pusa hispida* | -107.50 | 105.99 | 169.54 | -113.35 |
| FEEDM | *Enaliarctos emlongi* | 308.860018 | 29.9961854 | 16.379389 | 43.33132 |
| FEEDF | *Enaliarctos emlongi* | 115.653706 | -59.0705911 | 47.819998 | 141.0724 |
| Ventral Scores | | | | | |
| Specimen # | Taxon | PC. 1 | PC. 2 | PC. 3 | PC. 4 |
| AAVF2399 | *Arctocephalus australis* | -175.83 | 21.28 | 157.12 | -94.68 |
| AAVF2401 | *Arctocephalus australis* | -288.32 | -3.67 | 216.53 | -168.38 |
| AAVF2403 | *Arctocephalus australis* | -222.10 | 51.04 | 189.98 | -104.36 |
| AAVF2405 | *Arctocephalus australis* | -185.01 | 58.92 | 136.66 | -106.59 |
| AAVF2407 | *Arctocephalus australis* | -195.91 | 68.17 | 96.32 | -86.31 |
| AAVF2409 | *Arctocephalus australis* | -196.06 | 14.27 | 143.21 | -140.83 |
| AAVM2393 | *Arctocephalus australis* | -137.15 | 185.67 | 53.08 | -7.06 |
| AAVM2395 | *Arctocephalus australis* | -166.55 | 117.72 | 141.49 | -49.19 |
| AAVM2397 | *Arctocephalus australis* | -140.98 | 65.39 | 18.15 | -36.37 |
| CCVF2477 | *Cystophora cristata* | 225.93 | 30.81 | 158.53 | 29.17 |
| CCVF2479 | *Cystophora cristata* | 239.64 | 32.79 | 41.80 | -11.50 |
| CCVF2481 | *Cystophora cristata* | 195.83 | -27.34 | 97.05 | 30.01 |
| CCVF2483 | *Cystophora cristata* | 261.51 | -27.65 | 166.47 | 12.80 |
| CCVF2485 | *Cystophora cristata* | 183.78 | -2.95 | 112.01 | -79.92 |
| CCVF2487 | *Cystophora cristata* | 270.68 | 4.12 | 133.53 | 29.78 |
| CCVF2489 | *Cystophora cristata* | 205.24 | -25.61 | -26.33 | -25.22 |
| CCVF2491 | *Cystophora cristata* | 254.13 | 85.04 | 149.39 | -9.46 |
| CCVF2493 | *Cystophora cristata* | 289.69 | 5.15 | 159.09 | 2.12 |
| CCVF2495 | *Cystophora cristata* | 271.05 | 85.21 | 122.54 | -32.85 |
| CCVM2457 | *Cystophora cristata* | 283.83 | 112.11 | 30.76 | -32.60 |
| CCVM2459 | *Cystophora cristata* | 396.02 | 107.39 | 76.56 | 10.99 |
| CCVM2461 | *Cystophora cristata* | 315.42 | 99.75 | 6.79 | -47.79 |
| CCVM2463 | *Cystophora cristata* | 361.02 | 167.26 | 18.58 | 34.41 |
| CCVM2465 | *Cystophora cristata* | 292.87 | 155.56 | 86.92 | -30.70 |
| CCVM2467 | *Cystophora cristata* | 363.51 | 119.96 | 101.63 | -23.01 |
| CCVM2469 | *Cystophora cristata* | 255.47 | 104.74 | 61.40 | -8.86 |
| CCVM2471 | *Cystophora cristata* | 265.90 | 44.35 | 131.83 | -61.49 |
| CCVM2473 | *Cystophora cristata* | 288.73 | 120.51 | 100.63 | 60.08 |
| CCVM2475 | *Cystophora cristata* | 285.97 | -43.05 | 125.87 | -23.86 |
| CUVF2373 | *Callorhinus ursinus* | -224.45 | 24.84 | 50.71 | -94.18 |
| CUVF2375 | *Callorhinus ursinus* | -227.84 | 12.10 | 40.01 | -60.18 |
| CUVF2377 | *Callorhinus ursinus* | -285.99 | 12.18 | 81.70 | -54.24 |
| CUVF2379 | *Callorhinus ursinus* | -323.22 | 21.66 | 99.73 | -54.41 |
| CUVF2381 | *Callorhinus ursinus* | -279.39 | 12.89 | 75.73 | -46.57 |
| CUVF2383 | *Callorhinus ursinus* | -253.19 | -24.54 | 89.19 | -14.12 |
| CUVF2385 | *Callorhinus ursinus* | -305.46 | -28.18 | 114.96 | -96.05 |
| CUVF2387 | *Callorhinus ursinus* | -233.93 | 39.81 | 44.14 | -25.49 |
| CUVF2389 | *Callorhinus ursinus* | -277.09 | -40.89 | 118.79 | -65.34 |
| CUVF2391 | *Callorhinus ursinus* | -281.06 | -33.00 | 107.82 | -71.64 |
| CUVM2353 | *Callorhinus ursinus* | -171.07 | 146.32 | 43.24 | -74.60 |
| CUVM2355 | *Callorhinus ursinus* | -198.78 | 83.72 | 7.26 | 7.36 |
| CUVM2357 | *Callorhinus ursinus* | -160.92 | 105.93 | 65.44 | 31.74 |
| CUVM2359 | *Callorhinus ursinus* | -235.62 | 56.01 | 3.70 | 16.57 |
| CUVM2361 | *Callorhinus ursinus* | -142.57 | 87.54 | -16.78 | -8.57 |
| CUVM2363 | *Callorhinus ursinus* | -245.83 | 76.18 | -5.83 | -26.25 |
| CUVM2365 | *Callorhinus ursinus* | -250.67 | 9.70 | -23.29 | 24.30 |
| CUVM2367 | *Callorhinus ursinus* | -232.18 | 73.67 | -9.46 | -73.68 |
| CUVM2369 | *Callorhinus ursinus* | -202.99 | 103.04 | -21.53 | 11.58 |
| CUVM2371 | *Callorhinus ursinus* | -189.09 | 108.37 | -11.10 | -7.37 |
| EBVF2743 | *Erignathus barbatus* | 144.86 | -20.19 | 82.31 | -38.33 |
| EBVF2745 | *Erignathus barbatus* | 124.55 | -51.39 | 92.76 | 22.49 |
| EBVF2747 | *Erignathus barbatus* | 93.71 | -45.27 | 62.95 | -1.98 |
| EBVF2755 | *Erignathus barbatus* | 120.99 | -59.80 | 99.02 | 11.81 |
| EBVF2757 | *Erignathus barbatus* | 161.39 | -40.21 | 84.40 | -5.55 |
| EBVF2760 | *Erignathus barbatus* | 147.93 | -59.80 | 100.68 | 18.02 |
| EBVF2764 | *Erignathus barbatus* | 130.38 | -91.29 | 67.56 | 37.68 |
| EBVM2741 | *Erignathus barbatus* | 155.67 | -4.08 | 22.05 | 12.95 |
| EBVM2749 | *Erignathus barbatus* | 71.00 | -73.07 | 121.36 | 25.00 |
| EBVM2751 | *Erignathus barbatus* | 197.44 | -73.19 | 142.07 | 55.50 |
| EBVM2753 | *Erignathus barbatus* | 176.05 | 3.16 | 77.94 | 31.70 |
| EBVM2762 | *Erignathus barbatus* | 112.05 | -21.88 | 44.12 | 24.87 |
| EBVM2766 | *Erignathus barbatus* | 166.35 | -31.80 | 69.25 | 65.63 |
| EBVM2767 | *Erignathus barbatus* | 164.94 | -48.44 | 51.17 | 80.25 |
| EJVF2434 | *Eumetopias jubatus* | -51.89 | 286.82 | -59.63 | 50.24 |
| EJVF2436 | *Eumetopias jubatus* | -85.43 | 221.88 | -16.86 | 51.26 |
| EJVF2438 | *Eumetopias jubatus* | -13.07 | 195.64 | 32.24 | -22.79 |
| EJVF2440 | *Eumetopias jubatus* | -82.77 | 204.95 | 10.37 | 23.17 |
| EJVF2442 | *Eumetopias jubatus* | -80.00 | 222.44 | 48.33 | 7.46 |
| EJVF2444 | *Eumetopias jubatus* | -95.74 | 216.68 | -3.02 | -17.48 |
| EJVF2446 | *Eumetopias jubatus* | -104.68 | 261.76 | -41.70 | 12.33 |
| EJVF2448 | *Eumetopias jubatus* | -26.22 | 231.60 | -17.95 | -19.22 |
| EJVF2450 | *Eumetopias jubatus* | -41.46 | 228.25 | -84.10 | 8.82 |
| EJVF2452 | *Eumetopias jubatus* | -77.38 | 224.69 | -13.12 | -12.37 |
| EJVM2411 | *Eumetopias jubatus* | -8.85 | 306.50 | 15.94 | 51.01 |
| EJVM2413 | *Eumetopias jubatus* | -28.64 | 283.95 | 9.05 | 1.64 |
| EJVM2415 | *Eumetopias jubatus* | 15.25 | 278.73 | -9.89 | 36.31 |
| EJVM2417 | *Eumetopias jubatus* | 8.08 | 274.24 | -20.70 | 72.30 |
| EJVM2419 | *Eumetopias jubatus* | -0.56 | 217.14 | -17.16 | 55.22 |
| EJVM2421 | *Eumetopias jubatus* | -29.98 | 266.26 | -26.09 | 69.49 |
| EJVM2423 | *Eumetopias jubatus* | -12.13 | 249.61 | -58.86 | -5.20 |
| EJVM2425 | *Eumetopias jubatus* | 68.20 | 343.13 | -42.19 | 8.74 |
| EJVM2427 | *Eumetopias jubatus* | 31.18 | 307.61 | -58.33 | -41.56 |
| EJVM2429 | *Eumetopias jubatus* | -0.31 | 279.70 | -34.99 | 54.18 |
| HGVF2521 | *Halichoerus grypus* | 68.31 | -105.29 | -64.04 | -8.62 |
| HGVF2523 | *Halichoerus grypus* | 133.45 | 11.10 | -156.28 | -49.34 |
| HGVF2525 | *Halichoerus grypus* | 110.78 | -24.67 | -163.31 | -16.99 |
| HGVF2771 | *Halichoerus grypus* | 70.95 | -49.04 | -155.60 | -31.42 |
| HGVF2773 | *Halichoerus grypus* | 117.93 | -79.28 | -144.17 | -60.39 |
| HGVF2775 | *Halichoerus grypus* | 141.45 | -57.36 | -216.37 | 0.04 |
| HGVF2777 | *Halichoerus grypus* | 91.51 | -35.68 | -296.05 | 16.09 |
| HGVF2779 | *Halichoerus grypus* | 114.27 | -81.05 | -101.59 | 9.71 |
| HGVM2513 | *Halichoerus grypus* | 166.38 | 48.37 | -263.71 | -38.31 |
| HGVM2515 | *Halichoerus grypus* | 173.32 | -16.71 | -223.07 | -124.34 |
| HGVM2517 | *Halichoerus grypus* | 135.04 | -43.55 | -219.70 | -227.12 |
| HGVM2519 | *Halichoerus grypus* | 153.68 | -3.98 | -292.89 | -56.67 |
| HGVM2769 | *Halichoerus grypus* | 166.26 | -19.25 | -267.78 | -34.99 |
| HGVM2781 | *Halichoerus grypus* | 124.81 | -4.54 | -212.23 | -14.71 |
| HGVM2783 | *Halichoerus grypus* | 140.52 | 68.39 | -199.93 | 63.38 |
| HLVF2293 | *Hydrurga leptonyx* | -159.49 | 18.90 | -76.22 | 154.04 |
| HLVF2295 | *Hydrurga leptonyx* | -248.54 | 6.40 | -72.33 | 180.29 |
| HLVF2299 | *Hydrurga leptonyx* | -144.01 | 48.39 | -195.73 | 174.52 |
| HLVF2303 | *Hydrurga leptonyx* | -206.11 | -25.01 | -141.11 | 152.99 |
| HLVF2305 | *Hydrurga leptonyx* | -174.65 | 27.68 | -75.00 | 172.78 |
| HLVF2307 | *Hydrurga leptonyx* | -178.15 | -25.42 | -103.76 | 119.49 |
| HLVF2311 | *Hydrurga leptonyx* | -135.04 | -6.86 | -74.07 | 167.63 |
| HLVM2297 | *Hydrurga leptonyx* | -192.57 | -75.13 | -128.51 | 113.63 |
| HLVM2301 | *Hydrurga leptonyx* | -183.83 | -20.48 | -143.39 | 140.33 |
| HLVM2309 | *Hydrurga leptonyx* | -123.81 | -5.09 | -106.75 | 119.07 |
| LWVF2505 | *Leptonychotes weddelli* | -96.50 | -197.77 | 47.83 | 48.64 |
| LWVF2507 | *Leptonychotes weddelli* | -96.94 | -260.26 | 58.21 | 25.79 |
| LWVF2509 | *Leptonychotes weddelli* | -64.44 | -169.12 | 16.71 | 71.78 |
| LWVF2511 | *Leptonychotes weddelli* | -24.30 | -194.17 | 20.60 | 21.69 |
| LWVM2499 | *Leptonychotes weddelli* | -109.72 | -282.17 | 31.57 | -16.03 |
| LWVM2501 | *Leptonychotes weddelli* | -94.78 | -252.91 | 58.67 | 30.01 |
| LWVM2503 | *Leptonychotes weddelli* | -86.59 | -269.12 | -15.88 | 4.11 |
| MTVF2313 | *Monachus tropicalus* | 31.95 | -94.56 | -74.99 | -71.06 |
| MTVF2315 | *Monachus tropicalus* | -14.09 | -75.14 | -136.07 | -72.37 |
| MTVF2317 | *Monachus tropicalus* | -44.23 | -101.59 | -111.95 | -63.09 |
| MTVF2319 | *Monachus tropicalus* | -69.06 | -78.41 | -145.02 | -41.15 |
| MTVF2321 | *Monachus tropicalus* | 33.33 | -124.72 | -101.62 | -65.33 |
| MTVF2323 | *Monachus tropicalus* | -30.71 | -100.55 | -119.68 | -71.66 |
| MTVF2325 | *Monachus tropicalus* | -9.14 | -69.21 | -89.80 | -73.38 |
| MTVF2327 | *Monachus tropicalus* | -6.77 | -108.45 | -71.17 | -45.74 |
| MTVF2329 | *Monachus tropicalus* | -36.64 | -111.18 | -53.29 | -109.38 |
| MTVF2331 | *Monachus tropicalus* | 1.19 | -88.74 | -107.70 | -61.38 |
| MTVM2333 | *Monachus tropicalus* | -15.07 | -139.16 | -86.85 | -85.13 |
| MTVM2335 | *Monachus tropicalus* | -7.91 | -148.99 | -61.72 | -80.66 |
| MTVM2337 | *Monachus tropicalus* | 29.21 | -86.68 | -31.54 | -69.17 |
| MTVM2339 | *Monachus tropicalus* | 0.81 | -148.84 | -114.20 | -59.24 |
| MTVM2341 | *Monachus tropicalus* | -0.77 | -62.28 | -163.12 | -62.40 |
| MTVM2343 | *Monachus tropicalus* | -27.25 | -122.92 | -163.77 | -69.96 |
| MTVM2345 | *Monachus tropicalus* | 3.45 | -117.70 | -80.75 | -73.18 |
| MTVM2347 | *Monachus tropicalus* | 4.29 | -103.26 | -57.49 | -70.27 |
| MTVM2349 | *Monachus tropicalus* | 11.94 | -126.13 | -73.25 | -71.19 |
| MTVM2351 | *Monachus tropicalus* | 1.16 | -77.78 | -104.44 | -70.25 |
| PHVF2700 | *Pusa hispida* | -34.15 | -181.30 | 88.22 | 37.38 |
| PHVF2702 | *Pusa hispida* | -22.42 | -189.12 | 86.49 | -13.53 |
| PHVF2704 | *Pusa hispida* | 52.92 | -142.00 | 96.93 | 42.78 |
| PHVF2708 | *Pusa hispida* | -62.00 | -92.69 | 66.91 | 86.78 |
| PHVF2718 | *Pusa hispida* | 79.60 | -168.13 | 68.28 | 8.77 |
| PHVF2724 | *Pusa hispida* | 9.88 | -143.68 | 51.47 | 15.36 |
| PHVF2726 | *Pusa hispida* | 33.95 | -144.07 | 13.49 | 20.93 |
| PHVF2728 | *Pusa hispida* | 53.87 | -139.44 | 56.00 | 86.07 |
| PHVF2730 | *Pusa hispida* | -4.77 | -169.74 | 57.50 | 108.01 |
| PHVF2732 | *Pusa hispida* | -11.65 | -122.81 | 64.63 | 114.47 |
| PHVM2698 | *Pusa hispida* | -8.66 | -199.61 | 62.36 | 55.02 |
| PHVM2706 | *Pusa hispida* | 34.12 | -72.95 | 47.85 | 97.72 |
| PHVM2710 | *Pusa hispida* | 0.90 | -174.32 | 64.66 | 25.49 |
| PHVM2712 | *Pusa hispida* | -37.89 | -165.44 | 65.89 | 69.08 |
| PHVM2714 | *Pusa hispida* | 16.36 | -89.33 | 62.72 | 87.45 |
| PHVM2716 | *Pusa hispida* | -6.92 | -166.73 | 47.42 | 87.08 |
| PHVM2720 | *Pusa hispida* | -0.79 | -138.47 | -1.97 | 107.63 |
| PHVM2722 | *Pusa hispida* | 3.40 | -170.01 | 108.64 | 45.64 |
| PHVM2734 | *Pusa hispida* | -7.31 | -148.81 | 106.00 | 62.67 |
| PHVM2736 | *Pusa hispida* | 38.82 | -78.98 | 19.84 | 63.28 |
| FEEVM | *Enaliarctos emlongi* | 43.3359789 | 258.22007 | -81.4224749 | -131.1186589 |
| FEEVF | *Enaliarctos emlongi* | -32.8302598 | 343.227872 | -106.2441211 | -197.2538081 |

Specimens are colour coded by species. Colours correspond to those seen in figure 5.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Appendix 2f: Principal Component Loadings** | | | | | | |
| Dorsal Loadings | | | | | | |
| Variable | Landmark | Coord. | PC. 1 | PC. 2 | PC. 3 | PC. 4 |
| 1 | 1 | X | 0.3750 | -0.0109 | 0.1028 | -0.3239 |
| 2 | 1 | Y | -0.1059 | -0.4342 | 0.0567 | -0.0325 |
| 3 | 2 | X | -0.0348 | -0.2351 | 0.0979 | -0.0402 |
| 4 | 2 | Y | -0.6097 | 0.0691 | 0.2205 | 0.3418 |
| 5 | 3 | X | -0.0961 | -0.2398 | -0.2263 | -0.0667 |
| 6 | 3 | Y | 0.0907 | 0.1083 | -0.2787 | 0.2784 |
| 7 | 4 | X | -0.2192 | 0.6224 | -0.3549 | -0.2689 |
| 8 | 4 | Y | 0.0704 | 0.0571 | -0.0555 | -0.0448 |
| 9 | 5 | X | 0.1367 | -0.0690 | -0.0579 | 0.1364 |
| 10 | 5 | Y | 0.0555 | 0.1390 | 0.5737 | 0.0892 |
| 11 | 6 | X | 0.2128 | 0.0459 | -0.1180 | 0.2208 |
| 12 | 6 | Y | 0.1248 | -0.0529 | 0.0399 | -0.2895 |
| 13 | 7 | X | -0.0072 | 0.0331 | 0.1071 | -0.1424 |
| 14 | 7 | Y | 0.0527 | 0.0381 | -0.0520 | -0.0122 |
| 15 | 8 | X | 0.0392 | 0.1073 | 0.1164 | -0.1215 |
| 16 | 8 | Y | 0.0861 | 0.1252 | 0.1127 | -0.0677 |
| 17 | 9 | X | 0.0474 | 0.1073 | 0.0669 | 0.1354 |
| 18 | 9 | Y | -0.2351 | -0.0852 | -0.3661 | 0.2012 |
| 19 | 10 | X | 0.3422 | -0.2285 | -0.1585 | 0.3913 |
| 20 | 10 | Y | -0.2553 | -0.1942 | 0.0968 | -0.2214 |
| 21 | 11 | X | -0.2428 | -0.2113 | 0.0189 | -0.2001 |
| 22 | 11 | Y | 0.0289 | -0.0755 | -0.2480 | -0.2639 |
| 23 | 12 | X | 0.0596 | 0.1879 | 0.1603 | 0.1040 |
| 24 | 12 | Y | 0.0844 | 0.1959 | 0.1454 | 0.1973 |
| Ventral Loadings | | | | | | |
| Variable | Landmark | Coord. | PC. 1 | PC. 2 | PC. 3 | PC. 4 |
| 1 | 13 | X | -0.1333 | -0.0826 | 0.1192 | -0.2750 |
| 2 | 13 | Y | -0.0663 | -0.2502 | 0.1618 | -0.1921 |
| 3 | 14 | X | -0.1407 | -0.2623 | 0.2163 | -0.3012 |
| 4 | 14 | Y | -0.2379 | 0.3415 | 0.0225 | 0.2979 |
| 5 | 15 | X | 0.1132 | -0.1603 | -0.1446 | 0.4884 |
| 6 | 15 | Y | -0.1822 | -0.0635 | -0.2962 | 0.3661 |
| 7 | 16 | X | -0.0410 | 0.2436 | -0.2416 | -0.1171 |
| 8 | 16 | Y | 0.2649 | 0.1562 | -0.2400 | -0.0063 |
| 9 | 17 | X | 0.5683 | 0.4410 | 0.2982 | 0.0059 |
| 10 | 17 | Y | 0.2919 | -0.0149 | 0.0554 | -0.0459 |
| 11 | 18 | X | 0.0929 | -0.0950 | -0.3390 | -0.2167 |
| 12 | 18 | Y | 0.1143 | -0.2328 | -0.4476 | -0.0934 |
| 13 | 19 | X | 0.0098 | -0.1125 | 0.0567 | 0.0129 |
| 14 | 19 | Y | -0.0941 | -0.0946 | 0.1648 | 0.0863 |
| 15 | 20 | X | -0.1179 | -0.0180 | 0.1518 | 0.0588 |
| 16 | 20 | Y | -0.0813 | -0.0213 | 0.1425 | 0.0144 |
| 17 | 21 | X | -0.1242 | -0.0842 | 0.1705 | 0.1058 |
| 18 | 21 | Y | -0.0520 | -0.0146 | 0.1441 | 0.0258 |
| 19 | 22 | X | -0.1843 | 0.3244 | 0.0052 | -0.2145 |
| 20 | 22 | Y | 0.1994 | -0.2428 | 0.1621 | 0.0234 |
| 21 | 23 | X | 0.1654 | -0.1189 | 0.0678 | 0.0189 |
| 22 | 23 | Y | 0.0678 | -0.0361 | -0.0080 | -0.0437 |
| 23 | 24 | X | -0.0924 | -0.0197 | -0.0727 | -0.1342 |
| 24 | 24 | Y | -0.1033 | 0.0909 | -0.0296 | 0.1159 |
| 25 | 25 | X | -0.1838 | 0.1688 | -0.2268 | -0.2690 |
| 26 | 25 | Y | -0.0216 | 0.0009 | -0.0230 | 0.1252 |
| 27 | 26 | X | 0.0646 | 0.0940 | 0.0814 | -0.0751 |
| 28 | 26 | Y | 0.1540 | -0.0183 | 0.0283 | -0.0178 |
| 29 | 27 | X | 0.1142 | -0.0146 | -0.0209 | -0.0314 |
| 30 | 27 | Y | 0.0601 | 0.0396 | -0.1181 | -0.0677 |
| 31 | 28 | X | 0.0355 | 0.0260 | -0.0821 | -0.0820 |
| 32 | 28 | Y | 0.0282 | 0.0375 | -0.0864 | -0.0114 |
| 33 | 29 | X | -0.0379 | 0.0024 | 0.0287 | 0.0879 |
| 34 | 29 | Y | -0.0345 | -0.0960 | 0.0953 | 0.1404 |
| 35 | 30 | X | -0.0346 | -0.0196 | 0.0414 | 0.1004 |
| 36 | 30 | Y | -0.0319 | -0.0785 | 0.0869 | 0.1283 |
| 37 | 31 | X | -0.0431 | -0.1096 | -0.0321 | -0.0035 |
| 38 | 31 | Y | -0.3060 | 0.2940 | 0.1077 | -0.0044 |

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| **Appendix 2g: Phylogenetic Signal** | | |
|  | | |
| Dataset | Lambda | LogL |
| Dor.PC1 | 7.33067E-05 | -53.20492 |
| Ven.PC1 | 0.5099242 | -48.47403 |
| Dor.PC2 | 7.33067E-05 | -49.65413 |
| Ven.PC2 | 0.8698434 | -51.67445 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Appendix 2h: MANOVA testing male-female dimorphism** | | | | | | |
| Dorsal PC1 | | | | | | |
| Taxon | Df | Sum Sq. | Mean Sq. | F value | Pr(>F) | Sig. ? (\*/-) |
| *Arctocephalus* | 1 | 6569.1 | 6569.1 | 6.2867 | 0.04056 | \* |
| *Cystophora* | 1 | 55055 | 55055 | 11.39 | 0.003373 | \*\* |
| *Callorhinus* | 1 | 25043 | 25042.7 | 35.192 | 0.00001295 | \*\*\* |
| *Erignathus* | 1 | 3764 | 3763.8 | 1.3433 | 0.269 | - |
| *Eumetopias* | 1 | 1119.8 | 1119.8 | 0.9683 | 0.3381 | - |
| *Halichoerus* | 1 | 27149 | 27149.4 | 4.8263 | 0.04676 | \* |
| *Hydrurga* | 1 | 13.9 | 13.86 | 0.0047 | 0.9468 | - |
| *Leptonychotes* | 1 | 820.2 | 820.25 | 0.6975 | 0.4417 | - |
| *Monachus* | 1 | 1794.2 | 1794.2 | 1.2058 | 0.2866 | - |
| *Pusa* | 1 | 945 | 945 | 0.2242 | 0.6416 | - |
| Dorsal PC2 | | | | | | |
| Taxon | Df | Sum Sq. | Mean Sq. | F value | Pr(>F) | Sig. ? (\*/-) |
| *Arctocephalus* | 1 | 2542.6 | 2542.57 | 2.6855 | 0.1453 | - |
| *Cystophora* | 1 | 4679 | 4678.8 | 1.7942 | 0.1971 | - |
| *Callorhinus* | 1 | 3254.4 | 3254.4 | 2.6571 | 0.1205 | - |
| *Erignathus* | 1 | 914.3 | 914.31 | 0.6644 | 0.4309 | - |
| *Eumetopias* | 1 | 16936 | 16935.6 | 12.519 | 0.002349 | \*\* |
| *Halichoerus* | 1 | 5550.3 | 5550.3 | 2.4444 | 0.1419 | - |
| *Hydrurga* | 1 | 9536 | 9536 | 3.3572 | 0.1043 | - |
| *Leptonychotes* | 1 | 752.9 | 752.9 | 1.1578 | 0.3311 | - |
| *Monachus* | 1 | 1303 | 1303.3 | 0.5864 | 0.4537 | - |
| *Pusa* | 1 | 3532 | 3532 | 3.1748 | 0.09166 | - |
| Ventral PC1 | | | | | | |
| Taxon | Df | Sum Sq. | Mean Sq. | F value | Pr(>F) | Sig. ? (\*/-) |
| *Arctocephalus* | 1 | 7764.4 | 7764.4 | 6.0565 | 0.0434 | \* |
| *Cystophora* | 1 | 25294 | 25294.3 | 14.515 | 0.001283 | \*\* |
| *Callorhinus* | 1 | 21906 | 21905.5 | 17.362 | 0.0005794 | \*\*\* |
| *Erignathus* | 1 | 1023.4 | 1023.4 | 0.8738 | 0.3683 | - |
| *Eumetopias* | 1 | 24561 | 24561 | 27.228 | 0.00005805 | \*\*\* |
| *Halichoerus* | 1 | 7677.2 | 7677.2 | 14.003 | 0.002464 | \*\* |
| *Hydrurga* | 1 | 266.2 | 266.25 | 0.1787 | 0.6837 | - |
| *Leptonychotes* | 1 | 1202.3 | 1202.28 | 1.5732 | 0.2652 | - |
| *Monachus* | 1 | 1037.3 | 1037.25 | 1.6299 | 0.2179 | - |
| *Pusa* | 1 | 199.7 | 199.7 | 0.1597 | 0.6942 | - |
| Ventral PC2 | | | | | | |
| Taxon | Df | Sum Sq. | Mean Sq. | F value | Pr(>F) | Sig. ? (\*/-) |
| *Arctocephalus* | 1 | 15462 | 15462 | 9.563 | 0.0175 | \* |
| *Cystophora* | 1 | 34363 | 34363 | 12.78 | 0.00216 | \*\* |
| *Callorhinus* | 1 | 36433 | 36433 | 34.37 | 0.000015 | \*\*\* |
| *Erignathus* | 1 | 1006 | 1005.6 | 1.413 | 0.258 | - |
| *Eumetopias* | 1 | 13116 | 13116 | 13.94 | 0.00152 | \*\* |
| *Halichoerus* | 1 | 12029 | 12029 | 8.257 | 0.0131 | \* |
| *Hydrurga* | 1 | 3337 | 3337 | 3.679 | 0.0914 | - |
| *Leptonychotes* | 1 | 6748 | 6748 | 6.829 | 0.0475 | \* |
| *Monachus* | 1 | 1641 | 1641.4 | 2.703 | 0.117 | - |
| *Pusa* | 1 | 390 | 390.1 | 0.277 | 0.605 | - |

Significance codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘-’ 1

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| **Appendix 2i: OLS comparing PC data and mating system** | | | | | | | | |
| (due to phylogenetic signal, Ven. PC2 - Mat. Sys. Comparison in Table S10) | | | | | | | | |
| Dataset | Estimate | Std. Error | t value | Mult. R² | Adj. R² | F-statistic | p value | Sig. ? (\*/-) |
| Dorsal PC1 vs. Mat. Sys. | 0.003002 | 0.003791 | 0.792 | 0.065 | -0.038 | 0.627 | 0.449 | - |
| Dorsal PC2 vs. Mat. Sys. | 0.007668 | 0.005035 | 1.523 | 0.205 | 0.117 | 2.32 | 0.162 | - |
| Ventral PC1 vs. Mat. Sys. | -0.011263 | 0.002535 | -4.443 | 0.687 | 0.652 | 19.74 | 0.00162 | \*\* |
| Ventral PC2 vs. Mat. Sys. | see PIC (Table S10) | | | | | | | |

Significance codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘-’ 1

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| **Appendix 2j: Phylogenetic Independent Contrast** | | | | | | | | |
| Comparison of ventral PC2 data and mating system | | | | | | | | |
| Dataset | Estimate | Std. Error | t value | Mult. R² | Adj. R² | F-statistic | p value | Sig. ? (\*/-) |
| Ventral PC2 vs. Mat. Sys. | -0.01014 | 0.00396 | -2.559 | 0.4502 | 0.3815 | 6.55 | 0.03368 | \* |

Significance codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘-’ 1

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| **Appendix 2k: Male-Female Intraspecific Skull Length Ratios** | | | |
|
| Taxon | Mean Ratio | SD Ratio | Max Ratio |
| *Arctocephalus australis* | 1.3040 | 0.1009 | 1.4636 |
| *Cystophora cristata* | 1.1258 | 0.0782 | 1.3105 |
| *Callorhinus ursinus* | 1.2939 | 0.0494 | 1.4012 |
| *Erignathus barbatus* | 1.0175 | 0.0677 | 1.1544 |
| *Eumetopias jubatus* | 1.2536 | 0.0290 | 1.3009 |
| *Halichoerus grypus* | 0.9549 | 0.9549 | 1.3200 |
| *Hydrurga leptonyx* | 1.0657 | 0.0950 | 1.2179 |
| *Leptonychotes weddellii* | 1.0491 | 0.0629 | 1.1392 |
| *Monachus tropicalis* | 0.9645 | 0.0975 | 1.1780 |
| *Pusa hispida* | 0.9942 | 0.0928 | 1.2646 |

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| **Appendix 2l: Male-Female Intraspecific Centroid Euclidean Distance** | | |
|
| Taxon | Dorsal | Ventral |
| *Arctocephalus australis* | 67.5193 | 105.0581 |
| *Cystophora cristata* | 109.3246 | 112.8313 |
| *Callorhinus ursinus* | 75.6651 | 108.8827 |
| *Erignathus barbatus* | 36.7544 | 23.6650 |
| *Eumetopias jubatus* | 60.1498 | 84.0945 |
| *Halichoerus grypus* | 93.5177 | 78.0124 |
| *Hydrurga leptonyx* | 67.5769 | 39.5041 |
| *Leptonychotes weddellii* | 30.2717 | 66.3483 |
| *Monachus tropicalis* | 24.7574 | 23.0521 |
| *Pusa hispida* | 29.9513 | 10.3459 |
| *Enaliarctos emlongi* | 212.7477 | 114.1386 |