**Table 5.4.** Information components including description and importance of the information for documenting and managing biological invasions (reason) of existing invasive alien species databases (data and knowledge products) relevant for planning and implementation of management.

Websites are provided at the first mention of each database (see **Chapter 2** for databases relevant for status and trends and **Chapter 6**, **section 6.6.3** for databases supporting policy options). Identified gaps identified within the data and knowledge products are also given. Adapted from CBD (2019).

| **Fields** | **Description** | **Database purpose** | **Examples of data and knowledge products** | **Identified gaps** |
| --- | --- | --- | --- | --- |
| Taxonomy | Scientific name, higher taxonomy, synonyms, common names | Name consistency & locating specimens | * GBIF -[https://www.gbif.org/](https://doi.org/10.1016/j.tree.2009.06.008) * World Register of Introduced Marine Species -[http://www.marinespecies.org/introduced/](http://www.inbiar.uns.edu.ar/) * FishBase - [https://fishbase.org/](https://www.ippc.int/en/external-cooperation/regional-plant-protection-organizations/) * Plant List - [http://www.theplantlist.org/](https://www.lucidcentral.org) * The Reptile Database - [http://www.reptile-database.org/](https://www.millenniumassessment.org) * AlgaeBase - [https://www.algaebase.org/](https://promedmail.org/) * IUCN Red List of Threatened Species -[https://www.iucnredlist.org/](http://biomodelos.humboldt.org.co/en) | Underrepresented biomes and taxa |
| Identification | Identification guides, diagnostic tools | Correct identification,  Early Detection | * iNaturalist - [https://www.inaturalist.org](http://www.esenias.org) * Lucidcentral - [https://www.lucidcentral.org](https://figshare.com/articles/dataset/InvaCost_References_and_description_of_economic_cost_estimates_associated_with_biological_invasions_worldwide_/12668570/4) * Antweb - a comprehensive diagnostic tool for ants - [http://antweb.org/](http://www.ciasnet.org/ciasnet-org) * Plant net -[https://plantnet.rbgsyd.nsw.gov.au/](http://diise.islandconservation.org/) * eBird - [https://ebird.org/home](http://b3.net.nz/gerda/) * BioNET – EAFRINET - [https://keys.lucidcentral.org/keys/v3/eafrinet/plants.htm](https://www.ibiocontrol.org/) * Portaleei Latin America - [http://portaleei.fcien.edu.uy/](https://doi.org/10.5281/zenodo.7858651) |  |
| Ecology | Including habitat, species interactions (e.g., host species) | Management  Risk assessment | * Global Invasive Species Database (GISD)-[http://www.iucngisd.org/gisd](https://invasoras.guyra.org.py) * Centre for Agriculture and Bioscience International Invasive Species Compendium - [https://www.cabi.org/isc](https://www.agriculture.gov.au/biosecurity/australia/reports-pubs/biosecurity-matters/2019-02) * FishBase * National invasive alien species databases - [http://www.inbiar.uns.edu.ar/](https://doi.org/10.2305/IUCN.CH.2019.SSC-OP.62.en); http://bd.institutohorus.org.br; [https://www.cidebox.com/jamaicainvasives/www/](https://promedmail.org/); [https://www.sieei.udelar.edu.uy](https://figshare.com/articles/Data_from_The_Global_Avian_Invasions_Atlas__A_database_of_alien_bird_distributions_worldwide/4234850); [https://invasoras.guyra.org.py](https://www.redmap.org.au/); [http://invasoras.biodiversidad.gob.ec](http://www.reptile-database.org/) |  |
| Spatial data | Distribution, native and introduced range, occurrence | Origin,  Management,  Risk assessment | * Global Invasive Species Database * Global Register of Introduced and Invasive Species (GRIIS) - [http://www.griis.org/](https://ashtagapp.com/) (Pagad et al., 2018, 2022b, 2022a) {Table 5.4} * Centre for Agriculture and Bioscience International Invasive Species Compendium * FishBase * Global Naturalized Alien Flora (GloNAF) - [https://glonaf.org](https://www.iucnredlist.org/) * Global Avian Invasions Atlas - [https://doi.org/10.6084/m9.figshare.4234850.v1](https://doi.org/10.6084/m9.figshare.4234850.v1%20) * SeaLifeBase - https://www.sealifebase.ca * WOAH - https://www.woah.org/en/what-we-do/animal-health-and-welfare/disease-data-collection/world-animal-health-information-system/ * European Alien Species Information Network - [https://easin.jrc.ec.europa.eu/easin/#](https://www.sealifebase.ca/) * Pacific Islands Ecosystems at Risk -http://www.hear.org/pier/ * Species observations for the United States and Territories [https://www.gbif.us](https://easin.jrc.ec.europa.eu/easin)) * Atlas of Living Australia - Analytic software platforms extensive and open source - [www.ala.org.au](https://www.gbif.org.au) * National invasive alien species databases * Biomodelos - Biomodels of potential distribution maps and invasive species fauna and flora in Colombia - [http://biomodelos.humboldt.org.co/en](http://www.inbiar.uns.edu.ar/) * International Union for Conservation of Nature Red List of Threatened Species * Regional plant protection organizations - [https://www.ippc.int/en/external-cooperation/regional-plant-protection-organizations/](https://keys.lucidcentral.org/keys/v3/eafrinet/plants.htm) |  |
| Status and Provenance | Invasive alien species status in introduced range including abundance, occurrence (extent of spread) and invasiveness | Origin,  Prioritization and Management  Prioritization | * Global Invasive Species Database * Global Register of Introduced and Invasive Species * Centre for Agriculture and Bioscience International Invasive Species Compendium * FishBase * European Alien Species Information Network * Pacific Islands Ecosystems at Risk * World Register of Introduced Marine Species * SeaLifeBase - [https://www.sealifebase.ca/](https://croplife.org/wp-content/uploads/2018/11/Phillips-McDougall-Evolution-of-the-Crop-Protection-Industry-since-1960-FINAL.pdf) * [WOAH World Animal Health Information System](http://www.iucngisd.org/gisd) - disease status * National invasive alien species databases |  |
| Primary and secondary pathways | Intentional or unintentional Pathways of introduction and spread | Biosecurity  Management | * Global Invasive Species Database * Global Register of Introduced and Invasive Species * Centre for Agriculture and Bioscience International Invasive Species Compendium * FishBase * European Alien Species Information Network * Pacific Islands Ecosystems at Risk * World Register of Introduced Marine Species * Database on Introductions of Aquatic Species * IPPC Documentation on ISPM - [https://www.ippc.int/en/core-activities/standards-setting/ispms/](https://theses.ncl.ac.uk/jspui/handle/10443/4926) * National invasive alien species databases [http://www.inbiar.uns.edu.ar/](https://www.africanews.com/2021/06/04/cutting-edge-company-flies-drones-to-deliver-vaccines-in-ghana/) | Secondary pathways classification inconsistent or missing |
| Monitoring and surveillance | Data from multiple sources in a real time. | Early Detection | * Early Detection and Distribution Mapping System - [https://www.eddmaps.org/](https://doi.org/10.1007/978-3-030-32394-3_20) |  |
| Impact | Environmental and socio-economic impact, mechanisms of impact, outcomes of these impacts and ecosystem services impacted | Risk assessment  Policy  Management | * Global Invasive Species Database * Global Register of Introduced and Invasive Species * Centre for Agriculture and Bioscience International Invasive Species Compendium * InvaCost database - [https://figshare.com/articles/dataset/InvaCost\_References\_and\_description\_of\_economic\_cost\_estimates\_associated\_with\_biological\_invasions\_worldwide\_/12668570/4](https://www.sieei.udelar.edu.uy) * Millennium ecosystem assessment [https://www.millenniumassessment.org](https://doi.org/10.5281/zenodo.7430733) * IUCN Red List of Threatened Species [https://www.iucnredlist.org/resources/threat-classification-scheme](https://plantnet.rbgsyd.nsw.gov.au/) * FishBase | No transparent, standardized way to report on impacts |
| Risk assessments | Developed risk assessments with outcomes | Management | * Global Invasive Species Database * Pacific Islands Ecosystems at Risk * Environmental Impact Classification of Alien Taxa (EICAT) and the Socio-Economic Impact Classification for Alien Taxa (SEICAT) * Global Compendium of Weeds -[http://www.hear.org/gcw/](http://www.griis.org/) * East and South European Network for Invasive Alien Species - [www.esenias.org](http://www.marinespecies.org/introduced/) * Pacific Invasive Ants Toolkit - http://www.piat.org.nz/ * National invasive alien species databases |  |
| Policy response | Legislations enacted, regulations, voluntary codes of conduct | Policy  Management | * ECOLEX - https://www.ecolex.org * FAOLEX - fao.org/faolex/en/ * InforMEA - United Nations Information Portal on Multilateral Agreements - [https://www.informea.org](https://www.imapinvasives.org) * EU Regulations [https://ec.europa.eu/environment/nature/invasivealien/index\_en.htm](http://www.theplantlist.org/) | Databases not searchable for invasive alien species |
| Eradication | Successes | Management | * DIISE - [http://diise.islandconservation.org/](http://invasoras.biodiversidad.gob.ec) * Global Eradication and Response Database, [http://b3.net.nz/gerda/](http://www.ala.org) * National invasive alien species databases |  |
| Control | Management practices, failure, best practices, biocontrol | Management | * Pacific Islands Ecosystems at Risk * Database of introductions of insect biological control agents for the control of insect pests (Cock et al., 2016) * Biological Control of Weeds – a world catalogue of agents and their target weeds - [https://www.ibiocontrol.org/](https://www.cidebox.com/jamaicainvasives/www/) * iMapInvasives - sharing information for strategic management - [https://www.imapinvasives.org](https://doi.org/10.5334/cstp.238) * Centre for Agriculture and Bioscience International Invasive Species Compendium * Pacific Invasive Ant Toolkit * Caribbean Invasive Alien Species Network - [www.ciasnet.org/ciasnet-org](https://easin.jrc.ec.europa.eu/easin/) * Database of Island Invasive Species Eradications * Global Eradication and Response Database * Early Detection and Distribution Mapping System * East and South European Network for Invasive Alien Species * National invasive alien species databases | No standardized way to report on management outcomes |