Metadata – SE – Fish and decapod crustacean species observations

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| **Metadata field** | **Content** |
| **Abstract** | This dataset comes from the internal database “KUL” for the Coastal Laboratory within the Department of Aquatic Resources (SLU Aqua) at the Swedish University of Agricultural Sciences. These data were collected as part of the environmental monitoring programme on behalf of the Swedish Agency for Marine and Water Management. |
| **Data provider organization name** | Swedish University of Agricultural Sciences, Department of Aquatic Resources (SLU Aqua) |
| **Data provider organization contact** | edmond.sacre@slu.se |
| **Lineage** | These data are part of the Coast and Sea environmental monitoring programme and have been quality ensured. |
| **URL of downloadable resource** | https://www.slu.se/institutioner/akvatiska-resurser/databaser/kul/ |
| **Temporal extent** | 01.01.2000 |
| 31.12.2023 |
| **Legal constraints** | Data can be used freely given that the source is cited (following creative commons license [CC-BY](https://creativecommons.org/licenses/by/4.0/)). See below for relevant citations. |
| **Limitations on public access** | No |

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| **Used methods** | Within these data all species of fish were recorded. The data are structured to include absences. Each fishing event (original\_id) contains an empty row with the “\_absence” entry. This indicates that any species not listed within the observation (original\_id) were absent. If the observation contains only “\_absence”, that means no species were observed at all.  The specific test fishing methods for each gear type are provided below.  Gillnets (K064): Data are derived from standardized surveys following the Swedish standard for sampling with multi-mesh gillnets in shallow coastal areas (Karlsson, 2020). The multi-mesh gillnets are randomly placed within four depth intervals (0-3, 3-6, 6-10, and >10 meters) of the study area. The total number of gillnets per survey varies (usually 35-45), and the number of gillnets in each depth interval is proportional to its surface area. The multi-mesh gillnets (Nordic nets) have a height of 1.8 m and are 45 m long, consisting of 9 different sections with mesh sizes ranging between 10-60 mm. Sampling is conducted with one net per night and station. Reference: Karlsson M (2020). Undersökningstyp: Provfiske i Östersjöns kustområden - Djupstratifierat provfiske med Nordiska kustöversiksnät. Version 1:4 2020-02-03. https://www.havochvatten.se/vagledning-foreskrifter-och-lagar/vagledningar/ovriga-vagledningar/overvakningsmanualer-for-miljoovervakning/overvakningsmanualer/provfiske-i-ostersjons-kustomraden---djupstratifierat-provfiske-med-nordiska-kustoversiktsnat.html  Fyke nets (K037, K054): Data are derived from standardized surveys following the Swedish standard for sampling with fyke nets in shallow coastal areas (Bergström and Karlsson, 2016). The gear used consists of modified fyke nets designed for eel fisheries. They have a height of 55 cm and feature a semicircle-shaped opening, a chamber with three entrances, and a five-meter-long leader net. For gear K037, two or more single-chamber fyke nets are linked together, leader net by leader net, while for gear K054, they are connected from leader arm to chamber. Fyke nets are randomly placed within three depth intervals (0-6, 6-10, and >10 meters) of the study area. Sampling is conducted with one (or more) pair(s) of fyke nets per night and station. Reference: Bergström L., Karlsson M. (2016). Undersökningstyp: Djupstratifierat provfiske med småryssjor. Version 1:0, 2016-01-28. https://www.havochvatten.se/download/18.2daa1277152c4afdb3064e28/1708688555568/undersokstyp-provfiske-med-smaryssjor.pdf |

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| **List those attributes with descriptions and values which were not available in reporting\_template** | | |
| **Attribute** | **Description** | **List of possible values** |
| origin\_id | *original\_id*. Non-unique id from the original database | e.g. 14 |
| date\_start | Date when species was observed. | e.g. 2000-10-29 |
| date\_end | Date of last observation, if during a period of multiple days. | NA |
| scien\_name | The scientific name of the species observed | e.g. Carcinus maenas |
| life\_stage | Life stage of the individual | NA |
| length | Length of the individual in centimeters | e.g. 13.75 |
| weight | Weight of the individual in used unit. | NA |
| quantity | Amount of individuals of specific species | e.g. 3 |
| q\_unit | *quantity\_unit*. The measured unit of quantity | individuals |
| gear\_type | Method of observation data collection. | e.g. Small fyke nets (fine mesh size) |
| fishing\_a | *fishing\_area\_m2.* Fishing area in square meters (m²) | NA |
| soak\_time | Time of fishing gear in the water in hours (h) | NA |
| effort | Catch per unit effort. Check *effort\_unit* column for more info below. | e.g. 2 |
| start\_lat | *start\_decimal\_latitude.* Observation location geographical latitude (WGS84, decimal degrees). When transect used this is the latitude of the start of the line. | e.g.  57.8898985109513 |
| start\_lon | *start\_decimal\_longitude.* Observation location geographical longitude (WGS84, decimal degrees). When transect used this is the longitude of the start of the line. | e.g.  22.7978082965516 |
| end\_lat | *end\_decimal\_latitude*. When transect used this is the latitude of the end of the line. | NA |
| end\_lon | *end\_decimal\_longitude*. When transect used this is the longitude of the end of the line. | NA |
| time\_utc | Time of observation hh:mm:ss UTC | e.g.  09:36:36 |
| depth | *water\_depth.* Depth at site of observation in meters. | e.g. 2 |
| temp\_c | *temperature\_c*. Measured water temperature in Celsius degrees. | e.g. 13.4 |
| notes | Free text field for possible additional information on observation | NA |
| citation | Specific citation for the dataset | NA |
| restr | *restriction.* Yes/no: whether any information is restricted for this observation. | No |
| restr\_desc | *restriction\_description*. If restriction is yes, reason why data cannot be shared freely. | This record belongs to the Department of Aquatic Resources at the Swedish University of Agricultural Sciences. It is available to be shared publicly. |
| station\_id | The ID number of the fishing stations used by SLU in the environmental monitoring programme. These stations are typically fished at repeatedly every year, so it can be useful to use these stations to see trend over time. | e,g, 101 |
| effort\_u | The specific units for effort. This is usually gears multiplied by unit time. E.g. if two fishing nets were used for four days, the effort would be 2\*4 = 8. | gears \* days; gears \* hours |
| gear\_code | The code for the specific gear type within the SLU Aqua database. This could be useful for cross-checking data and methodologies from reports and databases. | K037; K054; K064 |