**Input data preparation**

*HERAS data:*

1. extract new year index for all ages out of WGIPS report and update the HERAS section of "fleet.txt" (located in "./data/").
   * Note 1: beware the difference in units (millions in the report, # in the input file)
   * Note 2: HERAS age 0 is not part of the index input file (not used in the assessment)
   * Note 3: also update end date (intermediate year)
2. extract mean weight in stock out of WGIPS report and update “west\_raw.txt” (located in "./data/"):
   * Note 1: beware the difference in units (g in the report, kg in the input file)
   * Note 2: also update end date (intermediate year)
3. extract proportion mature at spawning time out of WGIPS report and update "matprop.txt" (located in "./data/")
   * Note 1: maturity age5,6,7,8,9 = 1
   * Note 2: maturity age0,1 = 0
   * Note 3: in practice, we only input maturity for age 2,3,4
   * Note 4: also update end date (intermediate year)

**Table 1: HERAS data input progress table.**

|  |  |  |  |
| --- | --- | --- | --- |
| Steps | Data input | Data check | Audit |
| (1) |  |  |  |
| (2) |  |  |  |
| (3) |  |  |  |

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| **Figure 1: example (2019 report) of the main NSAS table from WGIPS report (HAWG2018) where information is located** |

*IBTSQ1:*

1. (optional) extract exchange data from datras to "./data/IBTS index/IBTSQ1/" and replace file.
   * Note 1: data from 1984 onward are used.
   * Note 2: data are downloaded from the DATRAS portal (<http://www.ices.dk/marine-data/data-portals/Pages/DATRAS.aspx>) with all components (‘HL’, ‘HH’, ‘CA’)
2. Run "IBTSQ1\_index.R" (located in "./data/IBTS index/ ") to produce output table (IBTSQ1\_output.txt)
   * Note 1: the script introduces stochasticity so output generation will not produce a point estimate
3. Update IBTSQ1 section of "fleet.txt" with newly generated time series (IBTSQ1\_output.txt).
   * Note 1: also update end date (forecast year as IBTS-Q1 is conducted in the year the assessment takes place)

**Table 2: IBTSQ1 data input progress table.**

|  |  |  |  |
| --- | --- | --- | --- |
| Steps | Data input | Data check | Audit |
| (1) |  | X | X |
| (2) |  | X | X |
| (3) |  |  |  |

*IBTSQ3:*

1. (optional) extract exchange data from datras to "./data/IBTS index/IBTSQ3/".
   * Note 1: data from 1998 onward are used.
   * Note 2: data are downloaded from the DATRAS portal (<http://www.ices.dk/marine-data/data-portals/Pages/DATRAS.aspx>) with all components (‘HL’, ‘HH’, ‘CA’)
2. Run "IBTSQ3\_index.R" (located in "./data/IBTS index/ ").
   * Note 1: the script introduces stochasticity so output generation will not produce a point estimate
3. Update IBTSQ3 section of "fleet.txt" with newly generated time series.
   * Note 1: also update end date (intermediate year)

**Table 3: IBTSQ3 data input progress table.**

|  |  |  |  |
| --- | --- | --- | --- |
| Steps | Data input | Data check | Audit |
| (1) |  | X | X |
| (2) |  | X | X |
| (3) |  |  |  |

*IBTS0:*

Survey index provided by Matthias Kloppmann

1. extract new year index out of IBTS0 table and update IBTS0 section of "fleet.txt" (located in "./data/")
   * **Important note:** the update of the IBTS0 index includes updating the intermediate and forecast year (e.g. for HAWG2019, one need to update 2018 AND 2019). This is because the intermediate year index is provided for HAWG but is also updated in April (after HAWG takes place).
   * Note 2: the number of digits is reduced to 6
   * Note 3: also update end date (forecast year)

**Table 4: IBTS0 data input progress table.**

|  |  |  |  |
| --- | --- | --- | --- |
| Steps | Data input | Data check | Audit |
| (1) |  |  |  |

*LAI:*

LAI index provided by Norbert Rohlf.

1. Update "lai.txt" (located in "./data/") with newly available year values.

**Table 5: IBTS0 data input progress table**

|  |  |  |  |
| --- | --- | --- | --- |
| Steps | Data input | Data check | Audit |
| (1) |  |  |  |

*catch data:*

split WBSS/NSH done in data preparation days prior to HAWG (Henrik Mosegaard & Norbert Rohlf). Output file provided by Norbert.

1. Format output file name (e.g. SAM\_incl\_HAWG 2019.txt for 2019) and save it under "./data/Catch" together with files from previous years
   * Note 1: also update end date (intermediate year)
2. Extract landings for newly available year and update landing “caton.txt“ (located in "./data/")
   * Note 1: use working group catch.
   * Note 2: also update end date (intermediate year)
3. Extract catches at age for newly available year and update “canum.txt” (located in "./data/")
   * Note 1: also update end date (intermediate year)
4. Extract weight at age in catches for newly available year and update “weca.txt” (located in "./data/")
   * Note 1: also update end date (intermediate year)
5. Multi-fleet input, update of “canum\_mf.txt” from multi\_fleet\_HAWGXXXX.xlsx

**Table 6: catch data input progress table.**

|  |  |  |  |
| --- | --- | --- | --- |
| Steps | Data input | Data check | Audit |
| (1) |  | X | X |
| (2) |  |  |  |
| (3) |  |  |  |
| (4) |  |  |  |
| (5) |  |  |  |

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| **Figure 2: example (2019 report) of the table use to update caton.txt.** |

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| **Figure 3: example (2019 report) of the table use to update canum.txt.** |

|  |
| --- |
|  |
| **Figure 4: example (2019 report) of the table use to update weca.txt.** |

*Natural mortality:*

* Update "natMortDataFrame\_SMS2016.RData" file based on the latest SMS key run
* Update last year in "naturalMortality\_smoothing.r" script
* Run "naturalMortality\_smoothing.r" script to generate smoothed M
* Check addition from profiling is set to 0.11 (results from WKPELA2018) in "setupAssessmentObjects.r" script (as variable addM).

*miscellaneous:*

1. update date to current year in "fprop.txt". fixed value of 0.67.
   * Note 1: also update end date (intermediate year)
2. update date to current year in "mprop.txt". fixed value of 0.67.
   * Note 1: also update end date (intermediate year)

**Table 7: fprop and mprop data input progress table.**

|  |  |  |  |
| --- | --- | --- | --- |
| Steps | Data input | Data check | Audit |
| (1) |  | X | X |
| (2) |  |  |  |