World Register of Marine Species: Overview of the data management activities related to AquaRES

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World Register of Marine Species

*WoRMS aims to provide the most authoritative list of names of all marine species globally, ever published*

- Not just a name-index, but expert-based taxonomic database
  - > 400 editors
  - Steering Committee (SC)
  - Data management team (DMT)
- Permanent host institute: VLIZ
- Web-based system, including web-services
- International standards

- Background
  - 2004: MarBEF EU FP6 => online European Register of Marine Species - ERMS
  - 2007: further development to World Register
Content

Aphia

- Taxonomy
- Distribution
- Attributes
- Specimen
- Vernacular names
- Identification keys
- Notes
- Links
- Images
- Internal database management

Sources
WoRMS – part of the Aphia platform

Source: Vandepitte et al. (2015). How Aphia – the platform behind several online and taxonomically oriented databases – can serve both the taxonomic community and the field of biodiversity informatics. JMSE.
In general – WoRMS priorities

- WoRMS Steering Committee decision on priorities

1) Have at least 1 active editor per taxonomic group
2) Mark (accepted) species as ‘checked by editor’
3) Document basionym (original name)
   - Forward-looking: make this information mandatory
   - Backward-looking: priority to make this complete
4) Complete missing authorships
5) Document original description of each (accepted) species
6) Complete the environment flag
7) Document higher classification according to:
   - Internationally accepted standards (editor input)
   - Management classification for CoL (recently published by Ruggiero et al., 2015) where no editor is available
8) Document type localities
9) Document type species
• July 2013
  – Launch of World Amphipoda Database
  – Amphipoda editor network within WoRMS is expanded to 30 experts
  – Coverage of marine & non-marine taxa
    
    At least 1870 amphipod species and subspecies recorded from fresh or inland waters accounting for ~20% of the total known amphipod diversity

• October 2013
  – WoRMS DMT supports editors by processing +/- 250 publications, to get rid of major back-log

• September 2015
  – LifeWatch data grants for marine & non-marine Amphipoda editors

• April 2016
  – 278 (freshwater) species newly added
  – Revision of existing species

www.marinespecies.org/amphipoda
Polychaeta

- 2014
  - LifeWatch data grants to make Polychaeta in WoRMS more complete

- September 2015
  - New LifeWatch data grant approved
  - Geoff Read launches idea of AnnelidaBase @ AquaRES workshop
  - Conversations with Chris Glasby => edit freshwater Polychaeta in WoRMS

- June 2016
  - Chris Glasby active as WoRMS editor
  - No more news on the AnnelidaBase idea

World Polychaeta Database

www.marinespecies.org/polychaeta
Platyhelminthes

- September 2015
  - Conversations with Tom Artois @ AquaRES workshop
  - Tom editing in 3 databases => FADA, WoRMS & Turbellarian Database
  - Initiating contact with Seth Tyler Turbellarian Taxonomic Database
    - Tom informs Seth that in the future, he will only edit through WoRMS
    - Part of Seth's taxonomic information already in WoRMS, as his database is an external provider to Aphia. No recent synchronisations have been made.

- May 2016
  - Seth Tyler agrees to have his taxonomic information in WoRMS
  - Tom will continue editing flatworms in WoRMS

- June 2016
  - Comparison & integration of Turbellarian data is ongoing
Decapoda

• September 2015
  – First mention of possible Decapoda world list @ AquaRES workshop (Keith Crandall)
    • marine & non-marine
    • Fossil & recent

• May 2016
  – meeting @VLIZ with Sammy De Grave
  – More definite plans & first list of action points

• June (?) 2016
  – Freshwater Crustacea to VLIZ (Keith Crandall)
  – VLIZ to set up data exchange with FADA

• Summer 2017
  • Aimed launch of Decapoda Portal
  • Possibly linked with editor workshop
MolluscaBase

- February 2014
  - Mollusca experts @ VLIZ, discussing the building of MolluscaBase
    - Marine & non-marine
    - Fossil & recent

- August 2015
  - Official launch of MolluscaBase

- June 2016
  - Adding marine & non-marine taxa is a work in progress...
Tardigrada

• September 2015
  – Conversations at workshop with Roberto Guidetti & Sandra McInnes
  – Plans to build world list of Tardigrada, marine & non-marine

• April 2016
  – Plans for World Tardigrada List become reality: text & images for Portal are delivered
  – DMT workplan: May-June

• June 2016
  – DMT is working on the Portal
Gastrotricha

- August 2014
  - LifeWatch data grant Antonio Todaro => addition of marine & non-marine species
  - Already 452 freshwater species in WoRMS

- September 2015
  - Conversations with Maria Balsamo @ workshop
  - Maria will contact Antonio to start collaboration

- June 2016
  - Not heard from Maria anymore => need to follow up
Ostracoda

- January 2013
  - Launch of Ostracoda Portal through WoRMS

- September 2015
  - Conversations with Simone Brandao & Koen Martens @workshop
  - Decisions
    - Manage marine taxa through WoRMS
    - Manage freshwater taxa through FADA
    - Check higher classification, as this differs between both databases
    - After that: set up exchange mechanism

- May 2016
  - Ostracoda workshop @VLIZ
  - Decisions on higher classification are taken; implementation will follow

World Ostracoda Database

www.marinespecies.org/ostracoda