

LifeWatch Data Grant 2014

Filling the gaps in the World Register of Marine species (WoRMS)

Mollusca

Final Report

André F. Sartori



1. Data grant background

At the onset of this project, the Mollusca component of WoRMS included c. 106,500 name strings and c. 43,800 valid marine species. However, a number of gaps in the molluscan contents of WoRMS were identified: (1) it was estimated that about 5% of all valid marine mollusc species are missing in the database; (2) approximately 13% of molluscan names in the database had not been verified by a taxonomic editor; (3) for many names the original combination (basionym) is missing in the database; (4) most valid names have a rather incomplete list of synonyms.

The goal of this project was to help filling these gaps.

2. Agreed deliverables (as specified in the Data Grant contract)

Addition of 2,000 and revision of 500 molluscan names in WoRMS.

3. Results of the project:

- 2,161 molluscan names added to WoRMS
- 375 molluscan names revised in WoRMS
- 2,125 non-matches from WoRMS users (OBIS, Smithsonian Institute, etc) evaluated

4. (Brief) description of the work/methodology

Lists of non-matches from WoRMS users (OBIS, Smithsonian Institute, etc) were used as a starting point for work in this project. For each name in these lists, the following procedure was adopted:

1-) Check if name already exists in WoRMS:

Yes: Note corresponding AphiaID in list of non-matches

No: Go to (2)

2-) Check if name exists in published malacological literature:

Yes: Go to (3)

No: Add a note to the list of non-matches

3-) Research habitat of species, current status (accepted, unaccepted, misspelling, taxon inquirendum, etc), basionym and correct authorship of name; then:

If species is marine and/or brackish: add name to WoRMS

If species is freshwater and/or terrestrial: add note to list of non-matches

Very often additional names missing (or currently unverified) in WoRMS were found during the literature searches carried out to resolve non-matches. These names were also added (or verified). In all cases, literature sources of names were documented.

5. Problems encountered and how it was solved (or expected solutions).

The large extent and nature of literature on the taxonomy of molluscs posed a significant challenge to this project. The most relevant revisionary works have been and still are published only on paper, rendering any sort of automated indexing or searches very laborious. To minimise this limitation, I have scanned and performed optical character recognition (OCR) of some of the most relevant books in my personal library. A better solution would be to have new monographs available in PDF format from the publishers and older ones scanned and made available by projects such as the Biodiversity Heritage Library.

6. Other: remarks, suggestions, other information, bibliography.

None.