**Data paper**

**New records of the land and freshwater molluscs of Gran Canaria (Canary Islands, Spain)**

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**Abstract**

“Land and freshwater molluscs of Gran Canaria (Spain)” is an occurrence dataset containing 389 observations of 62 different taxa of land and freshwater molluscs encountered on Gran Canaria, an island central in the Canarian archipelago (Spain). Various sites were inspected in a period between 1988 to 2020. The aim is to contribute to the knowledge on the ecology and distribution of these species on the island such that it may aid conservation and research of these organisms in the future. The dataset is published as a standardized Darwin Core Archive and includes for each observation a stable occurrenceID, scientific name, date, and location of the observation, as well as info on lifeStage and organismQuantity, and supplementary remarks on the determination and the observation itself. We have released this dataset to the public domain under a CC0 1.0 Universal (CC0 1.0) Public Domain Dedication (https://creativecommons.org/publicdomain/zero/1.0/).

**Keywords**

snails, Mollusca, terrestrial, freshwater, Gran Canaria, Spain, occurrence, observation, open data, data paper

**Rationale**

The Canary Islands (Spain) are an archipelago of the coast of northwest Afrika. Gran Canaria is the third-largest island and located in the centre (Carracedo & Troll, 2016). The island contains a number endemic land snail species (e.g. Brito & Fraga, 2010). Freshwater molluscs are of smaller significance, but are also present. The research of land and freshwater molluscs of the Canaries mainly goes back to the 19th century with the famous works of Webb & Berthelot (1833), Shuttleworth (1852a, 1852b), Mousson (1872), Wollaston (1878), Mabille (1884), Odhner (1931), and others. Recent checklists are available (Bank et al., 2002; Brito & Fraga, 2010; Helixebas, 2019) and some more recent papers are cited further in this article. Nevertheless, taxonomic research is still largely based on these old works and many species were never found again since their description or the ecology or proper range is not known. This, together with the threats of global warming (Luque et al., 2013) and the increase of demographic and touristic pressure (Ibáñez et al., 1997) could (and probably already has) detrimental consequences for the survival of these species (see also the assessments on <https://www.iucnredlist.org/>). Therefore, there is an urgent need for information on ecology, distribution and taxonomy. We hope that this dataset of land and freshwater snail occurrences can contribute to the knowledge on these species and contribute to their survival on Gran Canaria and the Canary islands as a whole.

**Taxonomic coverage**

Land and freshwater molluscs do not comprise a monophyletic taxonomic group, but are all mollusc species that live in respectively land and freshwater habitats. On land, only gastropods occur (class Gastropoda, snails and slugs) and in freshwater, both gastropods as bivalves (class Bivalvia) occur. No observations of bivalves are present in this dataset. The dataset includes 389 observations of 62 taxa belonging to 27 genera (fig. 1) and 18 families.

Determination was mainly done on two meetings concerning the land snails of Gran Canaria organized by the Dutch Malacological Society (Nederlandse Malacologische vereniging, NMV) coordinated by Theo Ripken. These meetings took place on 21 April 2018 and 23 February 2019 in resp. Leiden and Den Haag (Netherlands). Reference material and expert knowledge provided many determinations. Determinations were further based on the following articles: Alonso & Ibáñez (2015b) and Yanes et al. (2011) for the genus *Napaeus*, Alonso & Ibáñez (2015a) and Valido et al. (1990) for *Insulivitrina*, Ibáñez et al. (2003) for the genus *Obelus*, Gittenberger & Ripken (1987) for the genus *Theba*, and Hutterer & Groh (1991) for the genus *Truncatellina* (see also Langeraert, 2019). Also Groh et al. (1992), Mabille (1884), Mousson (1872) (version of 1873, see Bank et al., 2002), Neiber (2015), Odhner (1931), Serna & Gómez (2008), Shuttleworth (1975), and Wollaston (1878) were consulted. Additional information was found in Bank et al. (2002), Brito & Fraga (2010), Helixebas (2019) and as well on <https://www.malacowiki.org/> and <https://www.iucnredlist.org/>. Finally, for species with a wider, European, distribution the following works were consulted: Cadevall & Orozco (2016), Cameron (2008), Glöer (2015), Horsák (2013), Jansen (2015) and Welter-Schultes (2012).

**Taxonomic ranks**

**Kingdom:** Animalia  
**Phylum:** Mollusca  
**Class:** Gastropoda  
**Families:** Achatinidae, Enidae, Ferussaciidae, Geomitridae, Helicidae, Lauriidae, Lymnaeidae, Oxychilidae, Physidae, Planorbidae, Pomatiidae, Pristilomatidae , Punctidae, Streptaxidae, Trissexodontidae, Valloniidae, Vertiginidae, Vitrinidae  
**Species:** *Ancylus striatus, Caracollina lenticula, Cernuella virgata, Cochlicella acuta, Cochlicella barbara, Cornu aspersum, Ferussacia folliculum, Gibbulinella* aff. *dealbata, Gibbulinella* aff. *dewinteri, Gyraulus parvus, Hawaiia minuscula, Hemicycla berkeleii, Hemicycla ethelema, Hemicycla* cf. *gaudryi, Hemicycla glasiana, Hemicycla guamartemes, Hemicycla psathyra psathyra, Hemicycla psathyra temperata, Hemicycla psathyra* cf. *temperata, Hemicycla saponacea, Hemicycla saulcyi carta, Hemicycla* spec.*, Insulivitrina nogalesi, Insulivitrina parryi, Lauria cylindracea, Monilearia arguineguinensis, Monilearia montigena, Monilearia* cf. *praeposita, Monilearia pulverulenta, Monilearia tumulorum, Monilearia* spec.*, Napaeus exilis, Napaeus interpunctatus, Napaeus isletae, Napaeus josei, Napaeus moquinianus, Napaeus obesatus, Napaeus validoi, Napaeus venegueraensis, Napaeus* cf. *venegueraensis, Napaeus* spec.*, Obelus despreauxii, Obelus pumilio, Otala lactea, Oxychilus draparnaudi, Paralaoma servilis, Physella acuta, Physella* cf. *acuta, Pomatias adjunctus, Pomatias* aff. *laevigatus, Pseudosuccinea columella, Radix auricularia, Rumina decollata, Theba arinagae, Theba geminata, Theba grasseti, Theba pisana, Truncatellina atomus, Vallonia costata, Vallonia pulchella, Xerotricha conspurcata, Xerotricha* aff. *orbignii*

**Geographic coverage**

The dataset comprises three trips taken to Gran Canaria (Canary Islands, Spain) by the first author in the period between 2016 and 2020 and three shells of *Monilearia arguineguinensis* (Seddon & Aparicio, 1998) obtained as a gift (WL:SNAIL:GC:OCC:00000) (figs 2-4).

**Bounding box**

West: -15.78273773; East: -15.389485; North: 28.160023; South: 27.73919296

**Temporal coverage**

1988-04-08 to 2020-02-08

**Methodology**  
**Sampling description**

Sampling was done ad random along random routes. Locations were not predefined, but some regions were specifically visited because of known species richness or endemics occurrence. At site, observations were incidental, but microhabitats or elements that were thought to be favourable for snails were given more attention (e.g. dead wood, north facing slopes etc.). Collection of specimens was mainly done by hand on sight. In some cases, a soil sample was taken that was later examined at home.

Individuals were observed as living snails or empty shells (recent or (sub)fossil). Juveniles were treated as individuals with a shell that lack adult characteristics, like an underdeveloped peristome or the presence of a keel that is not present in adult shells. Following this practice, subadult specimen were often classified as juveniles.

**Dataset  
Dataset description**

The following Darwin Core terms (<https://dwc.tdwg.org/terms/>) are used in the dataset: occurrenceID, family, scientificName, identificationQualifier, genus, specificEpithet, infraspecificEpithet, scientificNameAuthorship, eventDate, year, basisOfRecord, lifeStage, organismQuantity, organismQuantityType, decimalLatitude, decimalLongitude, coordinateUncertaintyInMeters, locality, municipality, stateProvince, island, islandGroup, country, countryCode, recordedBy, identifiedBy, identificationRemarks, occurrenceRemarks, kingdom, taxonID, language, license, rightsHolder, datasetID, institutionCode, datasetName, taxonRank, nomenclaturalCode

**Object name:** Land and freshwater molluscs of Gran Canaria (Spain)

**Format name:** Darwin Core Archive format

**Format version:**

**Character encoding:** UTF-8

**Language:** English

**License:** <https://creativecommons.org/publicdomain/zero/1.0/>

**Usage norms:**

**Publication date:** 2020-03-12

**Distribution:** <https://ipt.biodiversity.be/resource?r=snail-gran-canaria-occurrences>

**DOI:** https://doi.org/10.15468/ny1f9n

**Data records:**

**Additional information**

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