MalaCo (2013) **9**, 460-462

On the distribution and status of the River limpet *Ancylus fluviatilis* O.F. Müller, 1774 (Mollusca, Gastropoda, Planorbidae) in Israel

Sur la distribution et le statut de la Patelline des fleuves *Ancylus fluviatilis* O.F. Müller, 1774 (Mollusca, Gastropoda, Planorbidae) en Israël

Henk K. MIENIS [1, 2] and Oz RITTNER [1]

[1] Steinhardt National Collections of Natural History, Department of Zoology, Tel Aviv University, IL-6997801 Tel Aviv, Israel

[2] National Natural History Collections, Berman Building, Hebrew University of Jerusalem, Il-91904 Jerusalem, Israel.

Corresponding author: mienis@netzer.org.il

Résumé – De récentes données de présence de la Patelline des fleuves *Ancylus fluviatilis* en Israël sont ici présentées. La Patelline des fleuves est restreinte à cinq écoulements tous situés sur le Plateau de Golan. *Ancylus fluviatilis* est une espèce classée En danger en Israël car elle présente une aire de distribution limitée, et souffre de la destruction de ses habitats et de la pollution des eaux.

Mots-clés – Mollusca, Gastropoda, Planorbidae, *Ancylus fluviatilis*, distribution, status de conservation, Israël.

Abstract – The recent records of the River limpet *Ancylus fluviatilis* in Israel are enumerated. The River limpet is restricted to five streams which are all situated on the Golan Heights. *Ancylus fluviatilis* is classified as an endangered species in Israel because of its restricted range, reduction in annual rainfall, habitat destruction and severe local pollution of some of the streams.

Keywords – Mollusca, Gastropoda, Planorbidae, *Ancylus fluviatilis*, distribution, status of conservation, Israel.

Three limpet-like gastropods belonging to two different families have been reported from Israel: *Acroloxus lacustris* (Linnaeus 1758) (Acroloxidae), *Ferrissia clessiniana* (Jickeli 1882) and *Ancylus fluviatilis* Müller 1774 (Planorbidae) (Milstein, Mienis & Rittner 2012).

Of these three *Acroloxus lacustris* has to be considered an extinct species (Mienis 2012b), having disappeared with the drainage of the Hula swamps and several coastal marshes in the middle of the 20th century.

Ferrissia clessiniana has reestablished itself in Israel some 60 years ago and has now to be considered a successful colonizer (Mienis 2009). It had been present in the area during the Early and Middle Pleistocene of Gesher Benot Ya'aqov, but became extinct at a still undefined later stage (Mienis & Ashkenazi 2011).

The River limpet *Ancylus fluviatilis* (Fig. 1) is a typical Palearctic species, showing in its south-eastern range some isolated populations in mountainous regions in the Levant, the Arab Peninsula and Ethiopia (Wright 1963, Brown 1965, Brown & Wright 1980, Schütt 1982, Kinzelbach 1986, Al-Safadi 1990, Neubert 1998).

Kinzelbach (1986) rejected the record of *A. fluviatilis* from the former Hula swamps in Bodenheimer (1935) since *Ancylus* is never found adhered to the submerged parts of the stems of *Cyperus*, *Phragmitis* and *Typha*. Bodenheimer's specimens belonged almost certainly to *Acroloxus lacustris* and not to a *Ferrissia* species as suggested by Kinzelbach (1986).

Eight years ago a preliminary list of records of A. fluviatilis in Israel has been published by Mienis (2004). Here we publish an amended list and a supplementary record of the River limpet in Israel. The following records arranged from North to South are known to us:

- **Nahal Orvim**: in 'Ein Hajal, leg. Ch. Dimentman, 9 July 1967; north of Kfar 'Ein Hajal, leg. Ch. Dimentman, 9 July 1967; near TAP-line, leg. Ch. Dimentman, 6 May 1971; near Wasit, leg. Ch. Dimentman, 6 February 1972; in the stream, 07.03.1985.
- **Nahal Zavitan**: Station 23, leg. G. Herbst, 3 March 1985.
- **Nahal Yehudiyya**: Station 13, leg. G. Herbst, 3 March 1985.
- **Nahal Daliyyot**: Station 11 South, leg. H. Glazman, 20 August 1985.

Figure 1 – *Ancylus fluviatilis* Müller, 1774 (Photography by Oz Rittner)

■ **Nahal Kanaf**: Station 8, leg. R. Ortal, 18 February 1985.

All these streams are situated in the Northern and Central part of the Golan Heights, former Syrian territory, occupied by Israel since the Six Day War in 1967.

The River limpet *Ancylus fluviatilis* has to be considered an endangered species in Israel (Mienis & Ortal 1994, Milstein *et al.* 2012) because of - its restricted range in streams on the Golan Heights; - the fact that the Levant in general is suffering from a long term deficit in its rainfall; -returning flash-floods which are moving around in a disastrous way the substrate (pebbles and other stones) on which *Ancylus* is living; -the occasional events of severe pollution of the streams.

Moreover during two surveys of some of the streams on the Golan Heights carried out in 2011 (Mienis 2012a) we did not find *Ancylus fluviatilis.* However we did not survey the exact stations from where the River limpet had been recorded in the past.

Acknowledgements - We like to thank Dr. Reuven Ortal, recently retired from the Israel Nature and National Parks Authority (INNPA), Jerusalem, for giving us the opportunity to study the material collected by his former colleagues at the INNPA (Hillel Glazman and Gershon N. Herbst), and Dr. Chanan Dimentman, Hebrew University of Jerusalem (HUJ) for lodging his samples in the National Mollusc Collection of the HUJ.

References

Al-Safadi, M.M. 1990. Freshwater molluscs of Yemen Arab Republic. *Hydrobiologia*, 208: 245-251.

Bodenheimer, F.S. 1935. Animal life in Palestine. 506 pp. L. Mayer, Jerusalem.

Brown, D.S. 1965. Freshwater gastropod Mollusca from Ethiopia. *Bulletin of the British Museum (Natural History) Zoology*, 12: 37-94.

Brown, D.S. & Wright, C.A. 1980. Molluscs of Saudi Arabia Freshwater Molluscs. *Fauna of Saudi Arabia*, 2: 341-358.

Kinzelbach, R. 1986. Additional records of the River Limpet, *Ancylus fluviatilis*, from the Middle East. *Zoology in the Middle East*, 1: 129-132.

Mienis, H.K. 2004. On the presence of the River limpet *Ancylus fluviatilis* in Israel. *Ellipsaria*, 6 (1): 9-10.

Mienis, H.K. 2009. Exotic freshwater molluscs in Israel and the territories. In C. Çevik & D. Ergüden (Eds.): Proceedings of the Second National Malacology Congress (with international participation), Çukurova University, 8-10 October 2008, Adana, Turkey: 113-126.

Mienis, H.K. 2012a. Malacological field work in Israel and the Netherlands. Tel Aviv University The National Collections of Natural History, Annual Report 2010/2011: 74-79.

Mienis, H.K. 2012b. Checklist of aquatic inland molluscs from Israel (Holocene – Recent). In D. Milstein, H.K. Mienis & O. Rittner, 2012. A field guide to the Molluscs of inland waters of the Land of Israel, 45-48. Nature and Parks Authority, Jerusalem.

Mienis, H.K. & Ashkenazi, S. 2011. Lentic Basommatophora molluscs and hygrophilous land snails as indicators of habitat and climate in the Early-Middle Pleistocene (0.78 Ma) at the site of Gesher Benot Ya'aqov (GBY), Israel. *Journal of Human Evolution*, 60: 328-340.

Mienis, H.K. & Ortal, R. 1994. The names of the inland aquatic and terrestrial molluscs of Israel (including the categories of the threatened species). Nature Conservation in Israel – Research and Surveys, Supplement 2: 9 + VII + 8 pp. Israel Nature and National Parks Protection Authority. Jerusalem.

Milstein, D., Mienis, H.K. & Rittner, O. 2012. A field guide to the Molluscs of inland waters of the Land of Israel. 54 pp. Nature and Parks Authority, Jerusalem. (in Hebrew)

Neubert, E. 1998. Annotated checklist of the terrestrial and freshwater molluscs of the Arabian Peninsula with descriptions of new species. *Fauna of Arabia*, 17: 333-461.

Schütt, H. 1982. Die ostmediterrane Verbreitung von *Ancylus fluviatilis. Mitteilungen der Deutschen Malakozoologischen Gesellschaft*, 3 (36): 519-523.

Wright, C.A. 1963. The freshwater gastropod molluscs of the Western Aden Protectorate. *Bulletin of the British Museum (Natural History) Zoology*, 10 (4): 259-274, 2 plts.

Soumis le *02 décembre 2012*
Accepté le *16 janvier 2013*
Publié le *12 mars 2013*