The Cnidaria of the Nile Basin

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Abstract At least half of the cnidarian fauna of the Nile basin (7+ species) is suspected of being of allochtonous origin. In addition, species that are native (Limnocnida sp., Hydra spp.) have been poorly studied and seem to lack basin endemism. The introduced species (two of Pontocaspian and two of marine origin) are either salt-loving or tolerant of broad fluctuations in salinity. Yet, rapid changes in the lower Nile area in recent decades have secondarily eliminated three of them.

1 Introduction

The phylum Cnidaria is composed of predominantly marine animals. Several of these (including some sea anemones) occasionally enter the Nile delta lakes, but fail to establish populations there, and are thus not strictly Nilotic. Hydra’s and several medusa-forming taxa of fresh and brackish water, solitary or colonial have, however, consistently been recorded from the Nile basin, even if some are suspected of being alien invaders. In Birket Qarun, three taxa (one brackish and two marine) seem to have been introduced yet again disappeared in recent times, due to an excessive salinisation of the environment. For details on the taxonomy of the “nilotic” taxa, consult Jankowski et al. (2008) and Dumont (2009).

2 List of Species Recorded

Protohydra leuckarti: delta lakes (supposition)

Hydra spp. (s.l.): Lake Borullus (El-Shabrawy, pers. com.), lakes Kundi and Keilak (Green et al., 1984).

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Moerisia lyonsi: Birket Qarun in first half of twentieth century (Boulenger, 1908b).


Cordylophora caspia: Nile delta, Birket Qarun in Fayum, Nile up to Sudd swamps (Boulenger, 1908a; Rzóska, 1949).

Apitasiogeton pellucidus: Birket Qarun during the 1990s.

3 Discussion: Nature and Distribution of the Nile Cnidaria

The only cnidarians that are with certainty native of the Nile basin are the Hydra’s and the medusa Limnocnida. Yet, and remarkably, not a single full identification of a Hydra has become available to date. Possibly three to four species may be expected, but all remain to be confirmed, as well as their distribution across the basin. The brackish water Protohydra leuckarti, widely distributed around the Mediterranean Sea, almost certainly occurs in the brackish zones of the delta lakes, but have been overlooked to date.

As to the Limnomedusae, taxonomic confusion has so far handicapped the establishment of the nature of the Nile species. A Limnocnida cited from Lake Tana has been identified as L. indica by Thiel (1973) but without any illustrations. If L. indica, the “asiatic form” of the genus, indeed occurs in Africa, this might mean that only a single variable taxon exists, which appears unlikely. On the other hand, medusae from Lake Victoria were originally described as L. victoriae (Gunther, 1893), and may be conspecific with the widespread African L. tanganjicae (see also Gunther, 1907; Goy, 1977; Rayner & Appleton, 1989). Occasional specimens observed in the Nile near Khartoum (Dumont, 1994) have not been identified, and the same applies to a brief mass occurrence of medusae in the Nozha hydrodrome, an artificially isolated freshwater part of Lake Manzala (Elster & Vollenweider, 1961). The latter record was tentatively ascribed to Limnocnida by Dumont & Verheye (1984) and Dumont (1994), but it remains possible that it was the invasive Craspedacusta sowerbyi, an Asian species that has conquered all continents save Antarctica in the course of the twentieth century.

Moerisia lyonsi, a brackish water taxon first described (polyps and medusa) from Birket Qarun in the beginning of the twentieth century (Boulenger, 1908b) was long considered an endemic of the Fayum lakes. However, there are reasons to doubt that assumption. Birket Qarun was indeed a fresh, not a brackish water lake for most of its existence (El-Shabrawy & Dumont, 2009). It was artificially flooded with Nile water during pharaonic times and only turned brackish when the free flow of Nile water to the lake was impeded in Ptolemaic times. Salinisation remained modest, however, and a mesohaline state was only reached at the beginning of the