



## Hydromedusae (Cnidaria: Hydrozoa) from the temperate southwestern Atlantic Ocean: a review

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### Abstract

Hydromedusae are one of the best-represented planktonic groups in waters of the South Atlantic Ocean in terms of species richness. Nevertheless, medusae of the region are inadequately known because earlier studies have been limited and restricted to few areas. During the last two decades, almost 2000 samples from 54 research cruises have been collected, mostly within the continental shelf of Argentina and Uruguay (33 – 55° S). These samples provide an opportunity to significantly augment knowledge of the richness of the medusa fauna in the southwest Atlantic. Forty species of hydromedusae (six of them new records for the area), including 15 of Anthomedusae, 14 of Leptomedusae, three of Limnomedusae, four of Narcomedusae, and four of Trachymedusae, were identified. Our results indicate that previous lists overestimated species richness of hydromedusae in the area. When misidentifications, updated species synonymies, and doubtful records are taken into account, 71 valid species are recognized here from the study area. Based upon this corrected inventory list, the data suggest that the number of species of hydromedusae decreases markedly with increasing latitude, corresponding with that observed in other planktonic groups of invertebrates.

**Key words:** Hydrozoa, hydromedusae, southwestern Atlantic Ocean, biodiversity, checklist, plankton

### Introduction

Hydromedusae, the planktonic adult stage (medusa) of the Hydrozoa exclusive of siphonophores, constitute one of the best-represented planktonic groups in the South Atlantic Ocean in numbers of species, with 197 species reported from the region (Bouillon 1999). Only Copepoda, with more than 400 species (Bradford-Grieve *et al.* 1999), are known to be more diverse. Notwithstanding the relative importance of the group in terms of species numbers, the medusa fauna of the South Atlantic Ocean remains inadequately known. This is because earlier studies have been relatively few and restricted to few geographic areas.

Knowledge on species composition and distribution of hydromedusae from the southwestern Atlantic Ocean is characterized by a marked space-time discontinuity (see fig. 1a). The earliest records came from a few scattered reports appearing almost exclusively over the first half of the 20<sup>th</sup> century. These studies were restricted mainly to Subantarctic Islands and in a lesser degree to southern Patagonia, with occasional reports from the coast of Uruguay (see mainly Browne 1902; Thiel 1938; Browne and Kramp 1939; Kramp 1957). After an interval of nearly 30 years without any reports, a few sporadic studies on medusae were undertaken along the coast of Buenos Aires and in neighbouring areas (see mainly Goy 1979; Ramirez and Zamponi 1980; Zamponi 1983a, b, 1984).