

The Genus *Amblyops* (Crustacea: Mysida: Mysidae: Erythropinae) from East Asia and Australia, with Descriptions of Ten New Species

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Ten new species of the genus *Amblyops* (Crustacea: Mysida: Mysidae: Erythropinae) from waters neighboring East Asia and Australia, mainly Japanese waters, are described. The newly established species are *A. amamiensis*, *A. australiensis*, *A. izuensis*, *A. kashimensis*, *A. manazuruensis*, *A. okinawensis*, *A. pacificus*, *A. sagamiensis*, *A. surugensis*, and *A. timorensis*, bringing the total number of species in this genus to 22. *Amblyops pacificus* sp. nov. has been reported from the northern North Pacific under the name *A. abbreviatus* (G. O. Sars, 1869). It is instituted herein as a new species because it differs distinctly from that otherwise northern North Atlantic species in the characters of the eyeplates, antennal scale, and telson. In addition to these 10 new species, four unidentified species are also mentioned. A key to all the named species of *Amblyops* is given.

Key Words: Crustacea, Mysida, Mysidae, Erythropinae, *Amblyops*, new species.

Introduction

The genus *Amblyopsis* was established by G. O. Sars (1869) to accommodate *Pseudomma abbreviatum* enumerated in a species list of deep-sea organisms by M. Sars (1869), although the specific name cited by M. Sars was unavailable at that time. Later G. O. Sars (1872) changed the generic name to *Amblyops* since *Amblyopsis* had been preoccupied by a genus of fish (Percopsiformes: Amblyopsidae). Since then, species referred to this genus have been discovered from oceans and seas around the world, currently 12 species in all (Anderson 2010): *A. abbreviatus* (G. O. Sars 1869) from the northern North Atlantic, *A. kempfi* (Holt and Tattersall 1905) from the northern North Atlantic, *A. tenuicaudus* W. M. Tattersall, 1911 from off western Ireland, *A. tattersalli* Zimmer, 1914 from the Ross Sea, *A. antarcticus* O. S. Tattersall, 1955 from the Ross Sea and off the South Sandwich Islands, *A. durbani* O. S. Tattersall, 1955 from off Durban, South Africa, *A. aequispinus* Birstein and Tchindonova, 1958 from the Kurile-Kamchatka Trench, *A. magnus* Birstein and Tchindonova, 1958 from the Kurile-Kamchatka Trench, *A. ewingi* Băcescu 1967 from the Peru Trench, *A. spiniferus* Nouvel and Lagardère, 1976 from the Bay of Biscay, *A. trisetosus* Nouvel and Lagardère, 1976 from the Bay of Biscay, and *A. longisquamosus* Murano and Mauchline, 1999 from the northeastern North Atlantic. Four species, *P. australis* (G. O. Sars 1884), *Dactylamblyops sarsi* (Ohlin 1901), *Amblyopsoides crozetii* (G. O. Sars 1884), and *Amblyopsoides ohlini* (W. M. Tattersall 1951), were originally reported as species of *Amblyops*, but later transferred to the present genera by G. O. Sars (1885), Holt and Tattersall (1906), and, for the latter two species, O. S. Tattersall (1955),

respectively. *Amblyops* is principally characterized by the eyes being reduced to two separate plates without visual elements.

In general the species of *Amblyops* inhabit deep-sea habitats usually from hundreds to thousands of meters deep, so they are collected rarely and in small numbers, one to a few individuals. In addition they are usually heavily damaged in the course of collection. The specimens examined in this study are no exception.

The present study deals with the taxonomy of the species of the genus *Amblyops* G. O. Sars, 1872 based on specimens collected from waters neighboring East Asia and Australia, particularly waters adjacent to Japan. None of the specimens agrees with the descriptions of known species, and they are classified into 14 species, 10 of which are described as new species while four remain unnamed because the specimens are heavily damaged.

Materials and Methods

The present specimens were collected with four kinds of gear, ORI net, beam trawls, bottom-net, and sledge net, during scientific cruises of the RV “Hakuho Maru” and RV “Tansei Maru”, both belonging to the Ocean Research Institute, University of Tokyo (now the ships belong to Japan Agency for Marine-Earth Science and Technology). The ORI net is a conical plankton net with a 160-cm mouth diameter and a filtering part of 1.0-mm mesh; it is usually hauled obliquely in the water column (Omori 1965). Specimens of *Amblyops*, however, were caught when the nets accidentally contacted the seafloor, at a much higher rate than expected for ordinary plankton sampling in the water