A REDESCRIPTION OF SPHAEROPTHALMUS GROBBENI SPANDL BASED ON TYPE MATERIAL FROM THE RED SEA AND NEW MATERIAL FROM THE GREAT BARRIER REEF (AMPHIPODA, DEXAMINIDAE)

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Spandl (1923) gave a preliminary description of a curious new genus and species of gammaridean, Sphaerophthalmus grobbeni, collected in the Gulf of Suez, Red Sea, by the "Pola" Expedition, 1895-96. He later (1924) described and illustrated the species in more detail, but lack of information about mouthparts meant that it was never placed in a family. Barnard (1969) thought correctly that it belonged in the Dexaminidae, Ledoyer (1979) confirmed this when describing S. acutipes from Tuléar, Madagascar.

In September-October 1978 an Australian Museum expedition to Lizard Island, Great Barrier Reef, Australia, collected what appeared to be a species of Sphaerophthalmus while conducting an ecological survey of the lagoon. Although the species was relatively abundant it could not be identified with certainty using Spandl’s (1924) description. Dr. Pretzmann (Natural History Museum, Vienna) kindly allowed me to examine the two “Pola” Expedition specimens, both females. They agreed in every detail with females from Lizard Island; however, the males showed several sexually dimorphic characteristics. A female is redescribed below using the original “Pola” Expedition material, and a male is described for the first time using specimens from Lizard Island. The generic name Sphaerophthalmus was originally proposed by Angelin (1854) for a genus of olenidid trilobite. Spandl’s (1923) name is a junior homonym and the new name Dexaminculus is proposed to replace it. The new combination Dexaminculus acutipes (Ledoyer, 1979) replaces S. acutipes.

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This is a contribution from the Lizard Island Research Station.
Dexaminoculus new name
*Sphaerophthalmus* Spandl, 1923: 14 (junior homonym of *Sphaerophthalmus* Angelin 1854, Trilobita, Olenidae); type species by monotypy: *Sphaerophthalmus grobbeni* Spandl, 1923: 14.

Diagnosis. — Head deeper than wide, eye forming ventral bead. Peraeon tumid in female, fusiform in male. Pleon dorsoventrally flattened, carinae on pleonites 1 to 3, urosomites 2 and 3 coalesced. Antenna 2 sexually dimorphic. In female greatly reduced, in male longer than body with dense hair dorsally on article 1 of peduncle. Mandible with well developed molar. Lower lip with mandibular processes and distinct inner lobes. Maxilla 1 with uniarticulate palp. Maxilliped with medium-sized inner plates, large outer plates and 3-articulate palp. Gnathopod 1 sexually dimorphic. Peraeopods long, thin, simple, with article 4 shorter than articles 5 and 6 combined. Uropods 1 and 2 normal, uropod 3 with short peduncle and foliaceous rami. Telson large, elongate, cleft nearly to base, each lobe serrate terminally.

Remarks. — *Dexaminoculus* appears to be most similar to *Dexaminella* Schellenberg (1928), also originally described from the Red Sea. Both have a 3-articulate maxillipedal palp, well developed inner lobes and mandibular processes on the lower lip, well developed molar on the mandible, linear article 5 of gnathopod 2, simple peraeopods, serrated distal margins on the telson, and dorsal carinae on the pleonites. They differ in the shape of the head and eyes, the degree of development of the female antenna 2, rudimentary in *Dexaminoculus*, and the degree of development of the inner plates of the maxillipeds, absent in *Dexaminella*.

**Dexaminoculus grobbeni** (Spandl, 1923) (fig. 1-5)
*Sphaerophthalmus grobbeni* Spandl, 1923: 14; Spandl, 1924: 60, fig. 23; Barnard, 1969: 480, fig. 173a.

Type material. — Two female specimens collected in a plankton trap during the “Pola” Expedition at station 89 in the Gulf of Suez, Red Sea (28°40’N 32°57’E) on 31 March 1896. One specimen illustrated by Dr. Spandl (1924) in his amplified description of the original material is an ovigerous female (7 eggs) 3.5 mm in length. The head and body remain, plus a series of 9 slides. The other female (2.9 mm long) is in reasonably good condition. The maxillipeds, peracopod 7 and the third uropods are missing. Because Spandl (1923) selected no holotype, both specimens must be considered syntypes. I am designating the smaller specimen as the lectotype and have made permanent slides of the remaining mouth parts, antennae, gnathopods, peraeopods, uropods and telson from the right side of the body in order to redescribe the species.

Additional material. — Fifty two specimens from various localities in the lagoon of Lizard Island, Great Barrier Reef, Australia (14°38’S 145°28’E), living among patches of the blue-green alga *Lyngbya majuscula* Harv. on sandy