A new record of Paracerceis sculpta (Holmes, 1904) (Sphaeromatidae: Isopoda) from Pakistan, northern Arabian Sea

Pakistan Journal of Marine Sciences, Vol. 10(1), 43-48, 2001.

A NEW RECORD OF *PARACERCEIS SCULPTA* (HOLMES, 1904) (SPHAEROMATIDAE: ISOPODA) FROM PAKISTAN, NORTHERN ARABIAN SEA

Rehana Yasmeen and Waquar Javed
Department of Zoology, University of Karachi, Karachi-75270, Pakistan.

ABSTRACT: This paper records the presence of *Paracerceis sculpta* (Holmes, 1904) for the first time from the Northern Arabian Sea. Features of taxonomic importance are illustrated and briefly described.

KEY WORDS: *Paracerceis sculpta*, Isopoda, new record, Karachi.

INTRODUCTION

Paracerceis (Hansen, 1905) is a small genus consisting of 13 species (Harrison and Ellis, 1991: 943; Kussakin and Malyutina, 1993) recorded from all over the world. Recently specimens of *Paracerceis sculpta* were collected from the Port Qasim, Karachi coast, during a study of the intertidal Isopoda of Pakistan, constituting the first record of the genus and species from Pakistan waters.

The specimens have been deposited in the Museum of the Department of Zoology, University of Karachi.

SYSTEMATIC ACCOUNT

Order Isopoda
Family Sphaeromatidae Latreille, 1825
Genus *Paracerceis* Hansen, 1905
Species *P. sculpta* (Holmes, 1904)
(Figs. 1-3)

Dynamene sculpta Holmes, 1904: 300-302, pl. 34.

Ciliacea sculpta Richardson, 1905: 318-319; Stebbing, 1905: 35.

Paracerceis sculpta Richardson, 1905: IX; Menzies, 1962: 340, 341, fig. 2; Miller, 1968: 9, 14; Pires, 1981: 219, 220; Harrison and Holdich, 1982: 440-442.

Sergiella angra Pires, 1980: 212-218; 1981: 219-220.

Material examined: Adult male, 7.00 mm, 2 females, 5.00 mm from Port Qasim, lat. 24°41'54"N, Long. 67°08'30"E, Karachi, 29 September 1999.

Descriptive notes: Richardson (1905: 319) gave a detailed description which was later expanded by Harrison and Holdich (1982).

Dorsal surface of cephalosome and pereonites 1-7 smooth (Fig. 1), and posterior margins of pereonite 1-6 with bunch of setae. Posterior margin of pereonite 7 having 2

pairs of submedian and one median bunch of setae. Coxal plates 2-7 produced posteriorly into subacute triangular processes (Fig. 2B). Pleotelsonic notch (Fig. 2A) with a lateral pair of tubercles and a single disto-median setose tubercle. Epistome (Fig. 2C) with a short protrusion between two pronounced lateral bulges. Antenna 1 (Fig. 2D) peduncle article 1 broad and large, article 3 slender, flagellum composed of 10 articles, with aesthetases on article 4-10. Antenna 2 peduncle (Fig. 2E) article 5 longest with setae disto-laterally, flagellum composed of 13 articles, extending to posterior margin of pereonite 2 (Fig. 2B). Maxilla 1 (Fig. 2F) outer lobe with 6 simple and 4 pectinate spines. Maxilla 2 (Fig. 2G) medial and distal margins of inner ramus beset with about 14 simple and plumose setate, middle and outer rami each with 6 spine-like setae. Maxilliped (Fig. 2H) endite with about 10 marginal setae and single coupling hook, palp article 2-4 with setose lobes.

Pereopods with simple, well developed, acutely produced accessory unguis (Fig. 3A, B, C). Pleopods 1-2 as illustrated in Fig. 3D, E. Uropodal rami (Fig. 2A) densely setose, almost uniramus, endopod highly reduced, exopod well developed, long, slender and curving inward.

Fig. 1. *Paracerceis sculpta* (Holmes, 1904).

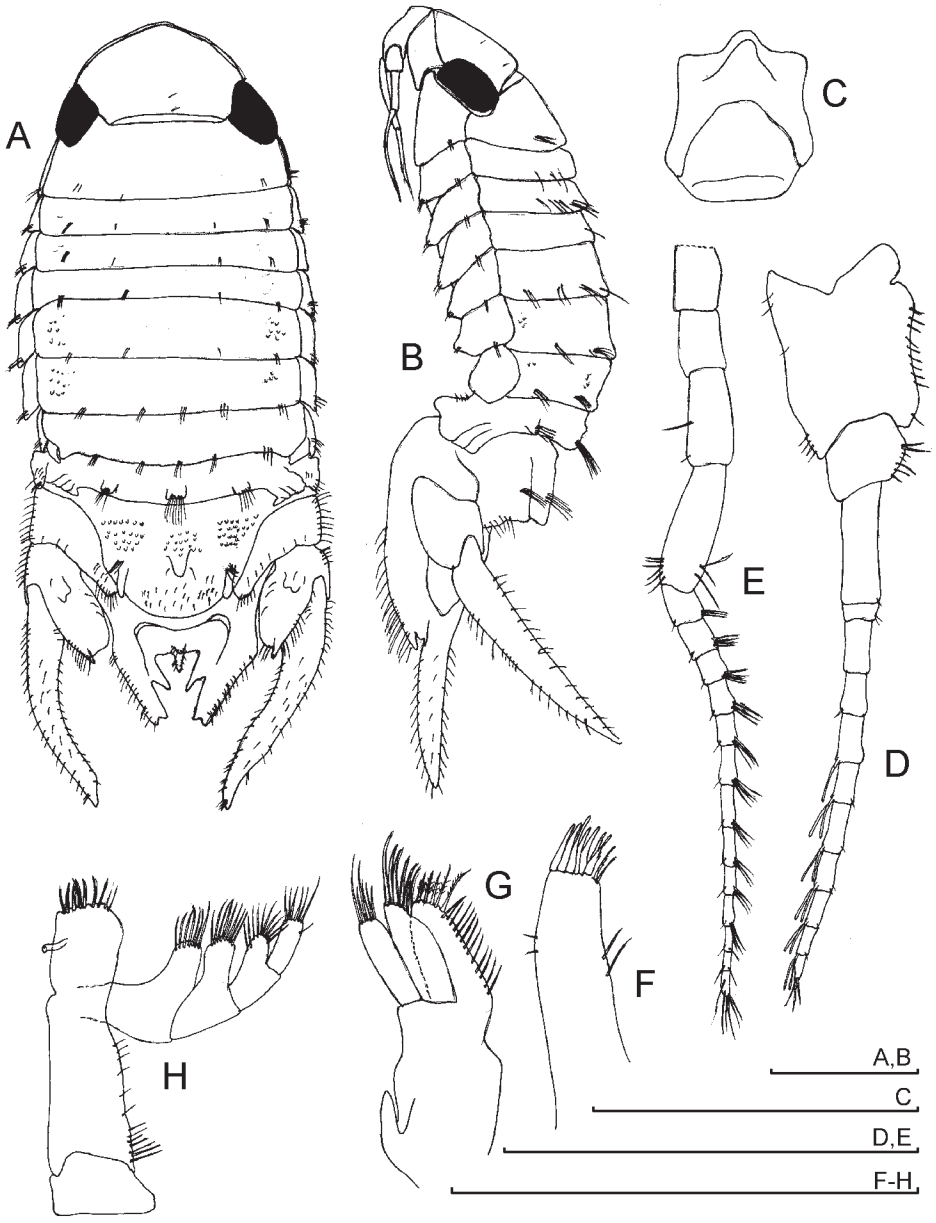

Fig. 2. *Paracerceis sculpta* (Holmes, 1904). Male, total length 7 mm. A. dorsal view; B. lateral view; C. epistome and labrum; D. antenna 1; E. antenna 2; F. maxilla 1; G. maxilla 2; H. maxilliped (Scale lines = 1 mm).

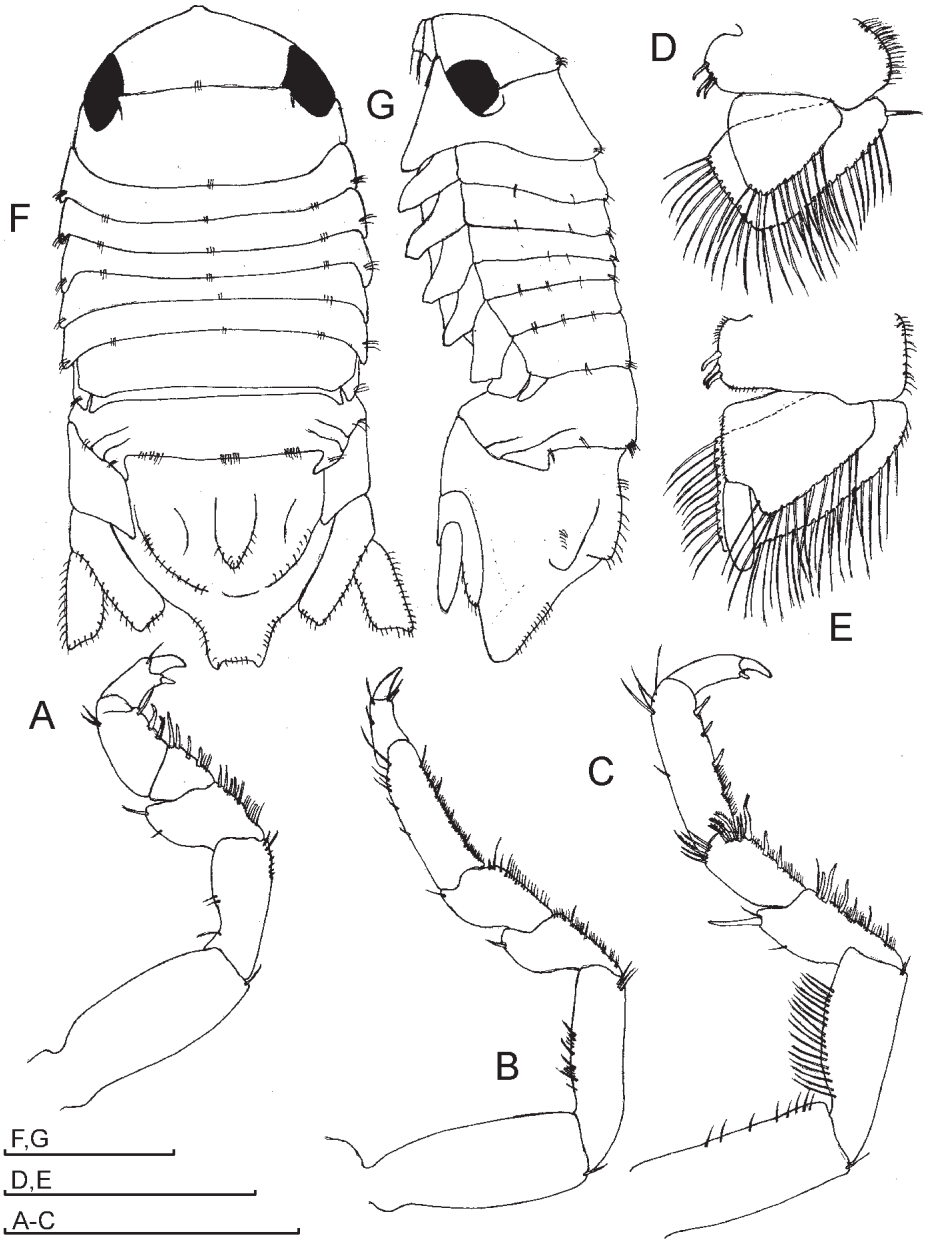

Fig. 3. *Paracerceis sculpta* (Holmes, 1904). Male, total length = 7 mm. A. pereopod 1; B. pereopod 2; C. pereopod 7; D-E. pleopod 1-2. Non-ovigerous female, total length = 5 mm). F. dorsal view; G. lateral view (Scale lines = 1 mm).

Non-ovigerous female: 5.00 mm.

Pleotelson with three fairly developed and setose longitudinal ridges, apex extended and setose, distal margin broadly notched. Uropod rami subequal, not extending beyond the apex of pleotelson (Fig. 3F, G).

Sexual dimorphism: Sexual dimorphism pronouncede specially in the morphology of uropod rami and also in the dorsal ornamentation of pleon and pleotelson (Fig. 3F, G).

Remarks: Present specimens agree closely with the description and illustrations given by Harrison and Holdich (1982) except that dorsal surface and lateral margins of both sexes are setose, while the specimens recorded from California have setae (Richardson, 1905; fig. 349) on posterior margins of pereonites 6 and 7 only.

Ecology and distribution: This species has previously been recorded from California, Brazil, Mexico, Egypt, all coast of Europe, Venice Mediterranean, Townsville, and Queensland, now its range extends to Port Qasim, Karachi, Pakistan, in the Indian Ocean. The material was collected from the algae attached to a pole of the wharf, having the salinity 34% and temperature 30°C.

ACKNOWLEDGEMENTS

Thanks are due to Prof. Dr. M. Afzal Kazmi, Chairman, Department of Zoology, University of Karachi, for providing the research facilities in the department. The author (R.Y.) gratefully acknowledges the University of Karachi for the financial grant given to study the Isopod fauna of Pakistan coast.

REFERENCES

Hansen, H.J. 1905. On the propagation, structure classification of the family Sphaeromidae. *Quart. Jour. Microsc. Sci.* 49(1): 69-135, pl. 7.

Harrison, K. and D.M. Holdich, 1982. New eubranch Spheromatid Isopods from Queensland waters. *Mem. Queensland Mus.* 20(3): 421-446.

Harrison, K. and J.P. Ellis, 1991. The genera of the Sphaeromatidae (Crustacea: Isopoda): a key and distribution list. *Invertab. Tax.* 5: 915-952.

Holmes, S.J. 1904. Remarks on the sexes of spheromids with a description of a new species of *Dynamene. Calif. Acad. Sci. Proc., Ser. 3. Zool.* 3: 296-306, pl. 34.

Menzies, R.J. 1962. The marine isopod fauna of Bahia de San Quintin, Baja California. *Mexico Pac. Natu.* 3(11): 337-348.

Miller, M.A. 1968. Isopoda and Tanaidacea from buoys in coastal waters of the continental United States, Hawaii and the Bahamas (Crustacea). *Proc. nit. Stat. Nat. Mus.* 125(3652): 1-53.

Kussakin, O.G. and M.V. Malyutina, 1993. Sphaeromatidae (Crustacea: Isapoda: Flabellifera) from the South China Sea. *Inverteb. Tax.* 7(5): 1167-1203.

Pires, A.M.S. 1980. *Sergiella angra*, a new genus ad species of Sphaeromatidae (Isopod) from Brazil. *Crustaceana.* 38(2): 212-8.

Pires, A.M.S. 1981. *Sergiella angra* Pires, 1980. A junior synonym of *Paracerceis sculpta* (Holmes, 1904) (Isopoda, Sphaeromatidae). *Crustaceana.* 41(2): 219-220.

Richardson, H. 1905. A monograph on the isopods of North America. *Bull. U.S. Nat. Mus.* 54: 1-727.

Stebbing, T.R.R. 1905. Report on the Isopoda collected by Prof. Herdman in Ceylon in 1902. Report on the Pearl oyster. *Fisheries of the Gulf of Manaar. Rep.* No. 23: 1-64.

(Received: 13 June, 2000)