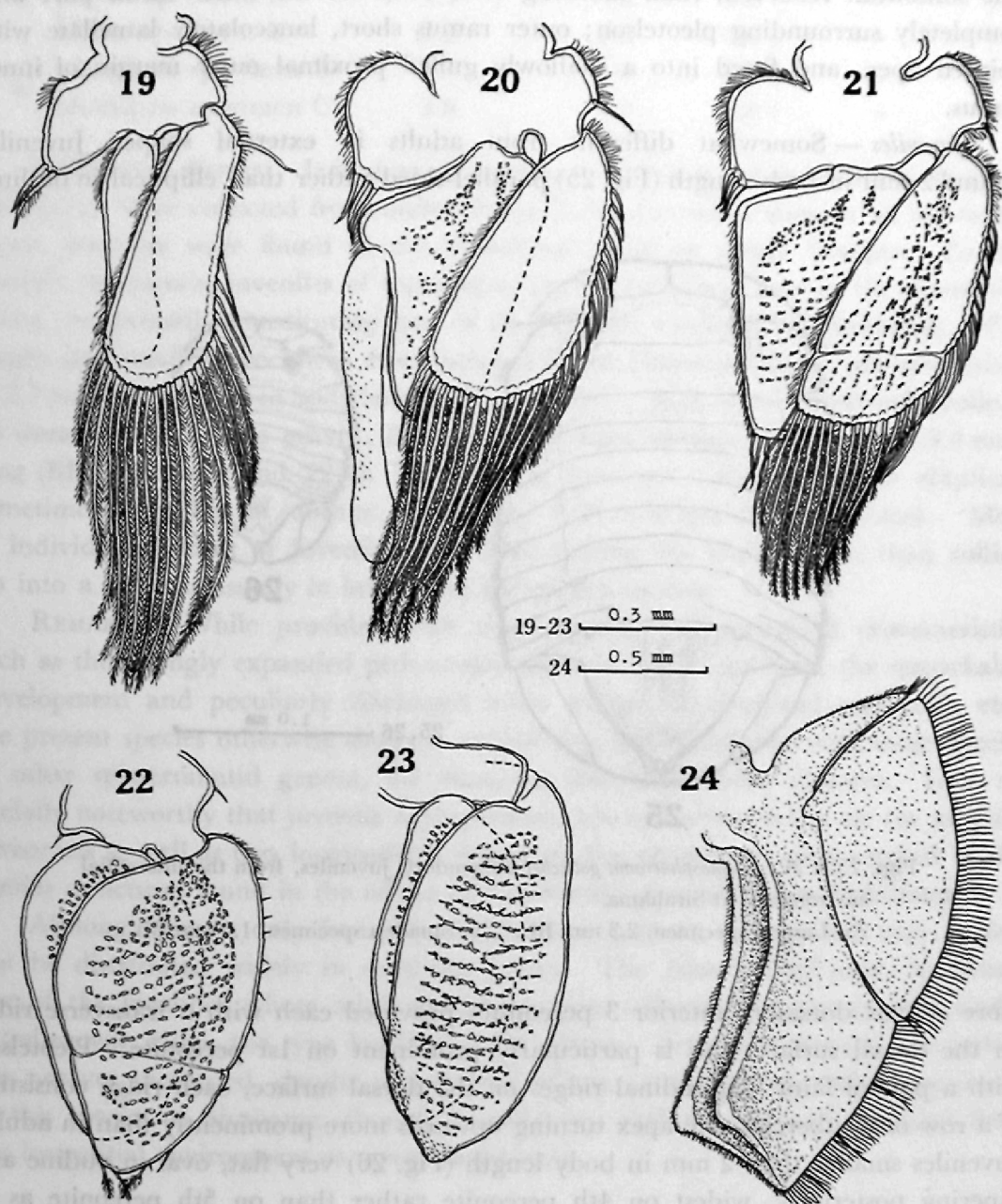


of its own length. Third pleopod (Fig. 21), endopod with ca. 14 setae, exopod 2-segmented and with ca. 28 setae. Fourth pleopod (Fig. 22), both rami thin and without transverse folds, endopod without setae, exopod 2-segmented and with ca.



Figs. 19-24. *Leptosphaeroma gottschei* Hilgendorf, adult male.

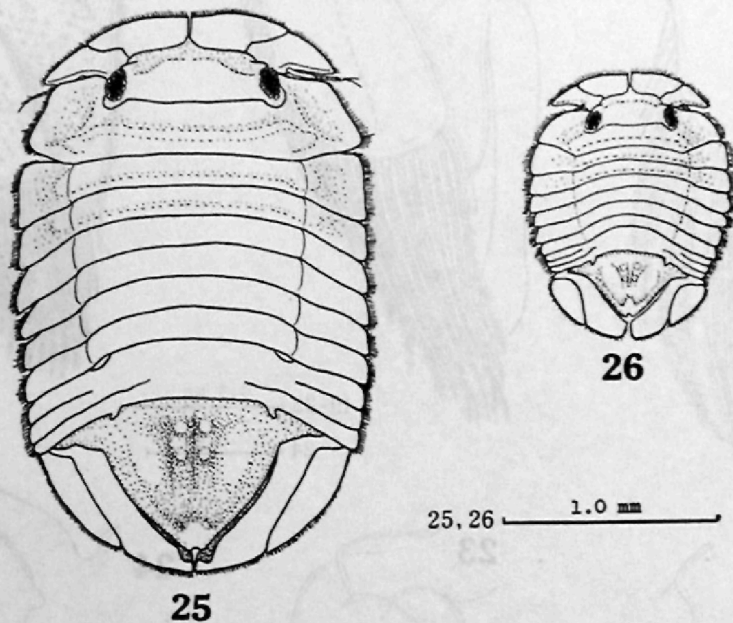
19. First pleopod. 20. Second pleopod. 21. Third pleopod. 22. Fourth pleopod.

23. Fifth pleopod. 24. Uropod, ventral view.

4 weak setae at apex. Fifth pleopod (Fig. 23), both rami thin, without transverse folds and quite lacking setae, exopod with 3 squamiferous, weak protuberances on inner distal corner.

Uropods (Figs. 1, 24), inner ramus very long, thin along the outer margin but strongly thickened along the inner margin which is notched by a longitudinal groove between upper- and lower-sided ridges, with the inner distal corner on the upper side somewhat recurved, rami touching each other at the inner distal part and completely surrounding pleotelson; outer ramus short, lanceolately lamellate with pointed apex, and fitted into a shallowly gulfed proximal outer margin of inner ramus.

Juveniles — Somewhat different from adults in external shape. Juveniles around 2 mm in body length (Fig. 25) parallel-sided rather than elliptical in outline,

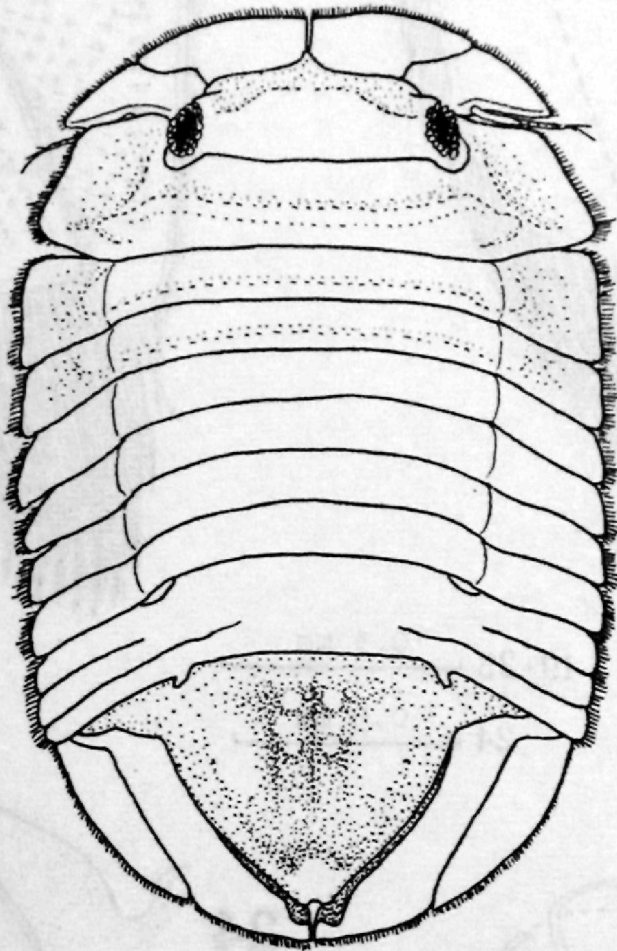


Figs. 25 & 26. *Leptosphaeroma gottschei* Hilgendorf, juveniles, from the interstitial environment at Sirahama.

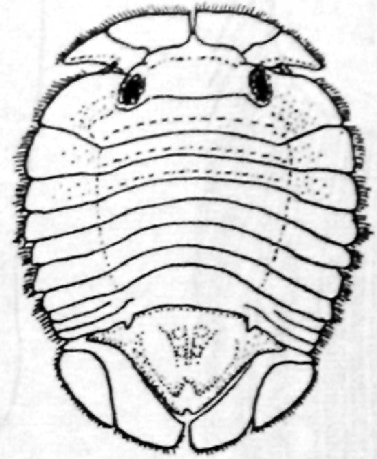
25. Largest specimen, 2.3 mm BL. 26. Smallest specimen, 1.0 mm BL.

more convex dorsally; anterior 3 pereonites provided each with a transverse ridge on the dorsal surface, this is particularly prominent on 1st pereonite. Pleotelson with a pair of faint longitudinal ridges on the dorsal surface, each ridge consisting of a row of 2 tubercles, the apex turning upwards more prominently than in adults. Juveniles smaller than 2 mm in body length (Fig. 26) very flat, oval in outline and tapering posteriorly, widest on 4th pereonite rather than on 5th pereonite as in adults (*vide infra*); the transverse ridges on anterior 3 pereonites faintly discernible. The longitudinal ridges on the dorsal surface of pleotelson and the upward bending of pleotelsonic apex most prominently developed.

COLOR: Specimens preserved in alcohol are cream white with melanophores dispersed all over except of the central part of body. The melanophores are less numerous and relatively small in size in adults, while they are numerous and conspicuously large in juveniles. Eyes black both in adults and juveniles.



25



26

25, 26 1.0 mm

gs. 25 & 26. *Leptosphaeroma gottschei* Hilgendorf, juveniles, from the interstitial environment at Sirahama.

25. Largest specimen, 2.3 mm BL. 26. Smallest specimen, 1.0 mm BL.

MEASUREMENTS (in mm):

	Total length	Body length	Body width	
♂	Amakusa specimen A	5.8	5.0	3.9 (on 5th pereonite)
	Kôbe specimen A	5.5	4.8	3.3 (")
	Kôbe specimen B	5.2	4.6	3.6 (")
♀	Amakusa specimen B	3.7	3.4	2.7 (")
	Amakusa specimen C	3.6	3.2	2.6 (")

BIOLOGICAL NOTES: It is of much interest to note that, while adults of the present species were collected from under stones in the intertidal zone or at low-water mark, juveniles were found in the interstitial space on sandy beaches. To the writer's experience, juveniles of this species are by no means rare in the interstitial fauna, occasionally constituting one of its common elements, at Sirahama. The largest and smallest specimens ever observed in the interstitial space are respectively 2.3 mm and 1.0 mm in body length (Figs. 25, 26). Both of the two females collected from Amakusa were gravid; the number of eggs incubated were 18 in 3.4 mm-long (BL) specimen and 22 in 3.2 mm-long specimen. Eggs ovoid or elliptical, sometimes irregular in outline, measuring 0.25–0.33 mm × 0.35–0.45 mm. Most of individuals, adult or juvenile, were fixed folding the body, rather than rolling up into a ball, as usually in broad and flat sphaeromatids.

REMARKS: While provided with very peculiar morphological characteristics such as the strongly expanded peduncular segments in 1st antenna, the remarkable development and peculiarly thickened inner margin in uropodal endopods, etc., the present species otherwise shows a certain degree of similarity with some species of other sphaeromatid genera, for instance, *Gnorimosphaeroma* Menzies. It is especially noteworthy that juvenile *Leptosphaeroma* has transverse ridges on the anterior pereonites as well as two longitudinal ridges on the pleotelson; they remind of the similar structures found in the adults of *Gnorimosphaeroma salebrosum* Nishimura.

Although known only from four localities at present, the species may doubtless be distributed widely in southern Japan. The Island Tsûji-jima, Amakusa, one of the localities where adult specimens were collected for the present study, is quite near Mogi, the type locality of the species. Strangely enough, the writer has not yet succeeded, despite of intensive efforts, in finding any adult specimens of this species at Sirahama, though juveniles are rather commonly sampled from the interstitial environment as mentioned above.

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