

In transverse section a prominent feature is the very large size of the dorsal longitudinal muscles in comparison with the ventral. The greater part of the area in the preparation of the body is occupied by the four muscular bands. The dorsal masses form almost a half moon, while the ventral are ovoid. A considerable incurvation exists on the ventral surface at the nerve-area, which is of moderate depth, and has the neural canal inferiorly. Superiorly the area is bounded by the oblique muscles which meet in the middle line. Next is the brownish opaque granular area, between which and the neural canal is a considerable space. The alimentary canal presents a distinct longitudinal layer outside the circular muscular coat on which the glandular lining rests. Two muscular bands from the outer wall of the canal cross inferiorly, and form an arch for the median blood-vessel.

In regard to the simple condition of the branchial processes this form approaches *Marphysa*, but the presence of the tentacular cirri and bristles is sufficiently diagnostic.

*Eunice kobeensis*, n. sp. (Pl. XXXVIII. figs. 12, 13; and Pl. XXA. figs. 1, 3).

*Habitat*.—Dredged off Kobé, Japan, in 8 to 50 fathoms.

The length of the example, which is incomplete posteriorly, is about 58 mm., and its greatest diameter about 3.5 mm.

The head (Pl. XXXVIII. fig. 12) of this form is distinguished from that of *Eunice norvegica* by the much more deeply cleft palpi or anterior lobes. The segmentation of the tentacular processes is also more distinct. The tentacle reaches to the tenth or eleventh segment, and its constrictions are at wide intervals, especially toward the tip. The next pair (which are considerably shorter) have narrower segments, a feature still more evident in the outer short pair. The buccal segment is comparatively narrow, and the tips of the tentacular cirri reach considerably beyond its anterior margin.

The dental apparatus (Figs. 37 and 38) is pale brownish, with various darker and lighter bands. The maxillæ are moderately arched. The left great dental plate shows seven teeth, the right eight. The left lateral paired plate has ten teeth, the left unpaired eight, both sets being comparatively small. The right lateral plate has about twelve small teeth. There is only a single accessory plate at the end of each paired plate.

The branchiæ are represented by a minute process on the third foot, and at the tenth present six firm branches of moderate length, but it is a noteworthy feature that neither in these nor in the succeeding branchiæ are the blood-vessels visible. The entire process is filled with coarse granular matter like the dorsal cirrus. In the twentieth foot (Pl. XXXVIII. fig. 13) the branchiæ have eight divisions, each coming off somewhat stiffly from the main stem, and at nearly equal distances. At the thirtieth foot there