

band. The endostyle extends from between the second and third to between the fourth and fifth muscle bands, and so occupies about two intermuscular spaces (Pl. III. fig. 3).

*Doliolum challengeri*, n. sp. (Pl. III. fig. 4).

*Body* of the usual cask-like form.

*Mantle* having the usual eight muscle bands.

*Branchial Sac* well developed. Stigmata numerous. The dorsal series commences at the second muscle band, and extends back to the fifth. Ventrally the stigmata end anteriorly at the third muscle band.

*Endostyle* reaching from the second to the fourth muscle band.

*Intestine* curved, with the convexity ventral.

I place in this new species the following specimens from the Challenger collection :—

(1.) August 11–12, 1874 ; off Kandavu, Fiji ; surface ; surf. temp.  $77^{\circ}\cdot5$  ; several specimens.

(?) (2.) June 17, 1875 ; Station 237, North Pacific ; surface ; lat.  $34^{\circ} 37' 0''$  N., long.  $140^{\circ} 32' 0''$  E. ; surf. temp.  $73^{\circ}$  ; twelve specimens.

(3.) June 18, 1875 ; Station 238, North Pacific ; surface ; lat.  $35^{\circ} 18' 0''$  N., long.  $144^{\circ} 8' 0''$  E. ; surf. temp.  $70^{\circ}\cdot5$  ; two specimens.

(4.) June 19, 1875 ; Station 239, North Pacific ; surface ; lat.  $35^{\circ} 18' 0''$  N., long.  $147^{\circ} 9' 0''$  E. ; surf. temp.  $70^{\circ}\cdot2$  ; three specimens.

(?) (5.) June 24, 1875 ; Station 242, North Pacific ; surface ; lat.  $35^{\circ} 29' 0''$  N., long.  $161^{\circ} 52' 0''$  E. ; surf. temp.  $68^{\circ}\cdot5$  ; three specimens.

(?) (6.) April 13, 1876 ; Station 352, off the West Coast of Africa ; surface ; lat.  $10^{\circ} 55' 0''$  N., long.  $17^{\circ} 46' 0''$  W. ; surf. temp.  $77^{\circ}\cdot7$  ; one large and three small specimens.

This species is closely allied to *Doliolum denticulatum*. The specimens from the North Pacific, collected on June 17, 18, and 19, 1875, are all mounted as microscopic objects. The nerve ganglion is placed in front of the fourth muscle band, but close to it.

In the specimens from near Fiji, August 11–12, 1874, the testis is long, and extends forward to the third muscle band. The alimentary canal is placed between the fifth and the seventh muscles.

The specimens collected on June 17 and 24, 1875, and on April 13, 1876, differ slightly from the others. In those of June 24, the stigmata of the dorsal series commence at the third muscle band, as in *Doliolum tritonis*, in place of at the second.

The specimens from the Atlantic, collected on April 13, 1876, are on two slides mounted as microscopic objects. The stigmata extend forwards dorsally to the second muscle band, but very little structure beyond that can be made out from the specimens.