

- (1.) *Doliolum mülleri*, Krohn.
- (2.) *Doliolum rarum*, Grobben.
- (3.) *Doliolum ehrenbergi*, Krohn.
- (4.) *Doliolum gegenbauri*, Uljanin.

The last-named species is (according to Uljanin) the *Doliolum denticulatum* of Huxley, while *Doliolum denticulatum* and *Doliolum caudatum* of Quoy and Gaimard are regarded as doubtful species which cannot be identified. As I have already explained above (p. 39), if Quoy and Gaimard's species are to be given up as unrecognisable and pass out of the literature of science, then Huxley's name, *Doliolum denticulatum*, has priority over Uljanin's; but I prefer to regard Huxley's species and Quoy and Gaimard's as identical. In either of these cases *Doliolum gegenbauri* would lapse as being an unnecessary synonym. A careful comparison, however, of the description and figures of Huxley with those of Uljanin does not support the identity of the two species insisted on by the latter author, and the branchial sacs certainly have very different relations in the two forms. Consequently it may be right to retain the specific name *gegenbauri* for the new Mediterranean species described by Uljanin, and having the arrangement of stigmata shown in Pl. III. fig. 2.

During the cruise of H.M.S. "Triton" in the summer of 1882 in the North Atlantic, Dr. John Murray captured in the tow-net vast numbers (thousands were preserved) of a *Doliolum* in the reproductive stage, which I described fully,¹ and identified doubtfully with *Doliolum denticulatum*, Quoy and Gaimard, after pointing out the differences existing between the "Triton" specimens and the species described as *Doliolum denticulatum* by Huxley and by Keferstein and Ehlers. I have now no doubt that Keferstein and Ehlers' species was distinct from Huxley's, and I am inclined to regard the "Triton" specimens as belonging to a third species, distinct from both the others, which may be appropriately named *Doliolum tritonis*.

The Challenger collection contains specimens of three species which appear to be different from any previously described. Of these, two are closely related, and are evidently not far distant from *Doliolum ehrenbergi*; while the third is very different, and belongs to the group of species with comparatively few stigmata containing *Doliolum rarum* and *Doliolum mülleri*.

Altogether, then, nine species of the genus may now be distinguished:—

- Doliolum denticulatum*, Q. and G. (and Huxley).
- Doliolum ehrenbergi*, Krohn.
- Doliolum gegenbauri*, Uljanin.
- Doliolum tritonis*, Herdman.
- Doliolum affine*, n. sp.
- Doliolum challengerii*, n. sp.
- Doliolum mülleri*, Krohn.

¹ Report on the "Triton" Tunicata, *Trans. Roy. Soc. Edin.*, vol. xxxii, part i. p. 93, 1883.