

Intermediates between *Diacria trispinosa* and *D. rampali*
(Mollusca, Pteropoda)

S. VAN DER SPOEL

Institute of Taxonomic Zoology (Zoological Museum), Amsterdam

INTRODUCTION

In the *Diacria trispinosa* species group there are four types of colour pattern, each restricted to one taxon. In *D. major* (Boas, 1886) the rims of the aperture are brown, in *D. trispinosa* forma *atlantica* Dupont, 1979, the aperture rims and the lateral ribs are brown, in *D. t.* forma *trispinosa* (De Blainville, 1821) the rims, lateral ribs and a spot on the posterior ventral surface are brown, and in *D. rampali* Dupont, 1979, the aperture rims, the lateral ribs and a spot on the anterior ventral surface are also brown. Near Japan the Dana Expeditions collected a sample of five adult specimens, all with a colour pattern intermediate between that of *D. t.* forma *trispinosa* and of *D. rampali*. Probably, intermediates between these two species are concerned.

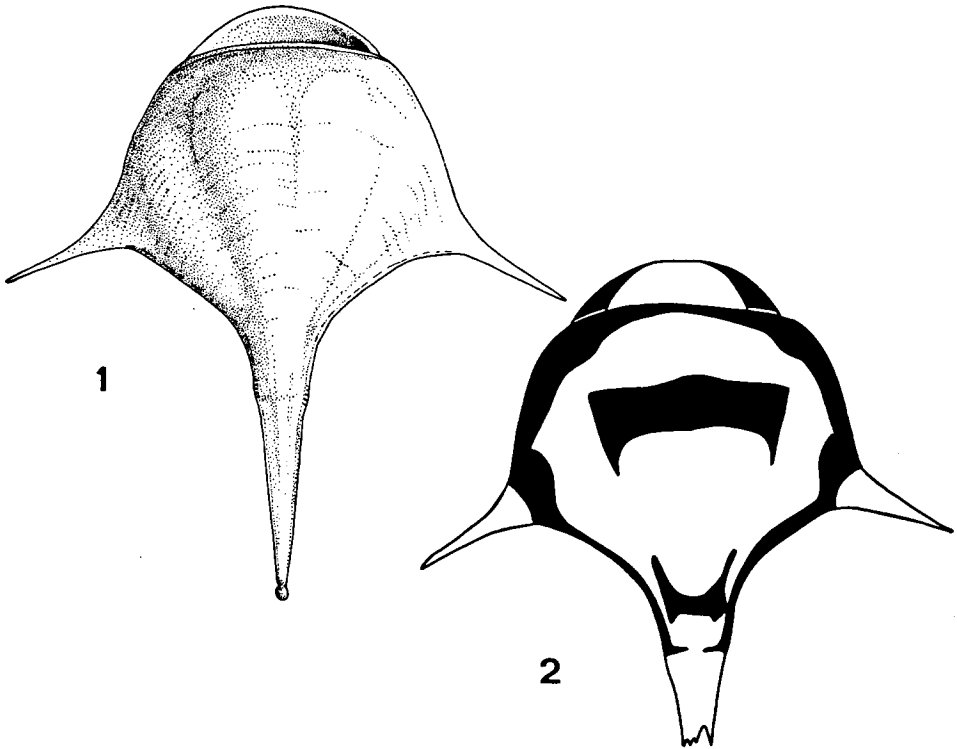
DESCRIPTION

The sample was collected from plankton at 30°20'N 138°00'E, 220 m.w., April 11, 1933, Dana Expedition Station 4775, and contained 20 juvenile and 5 adult specimens of *D. trispinosa*. This location is within the distribution range of *D. trispinosa* forma *trispinosa* (cf. Dupont, 1979) and is close to the northern limit of the range of *D. rampali*. Thus, there is a possibility of interbreeding between these two species.

The size of the present specimens (table 1) is larger than that of the two species mentioned and is closer to that of *D. major*. The shape (fig. 1), especially where the direction of the lateral spines is concerned, also resembles somewhat more that of *D. major* than that of *D. rampali*. However, it is not uncommon that intermediates grow larger than their parental species. No relation is supposed to exist with *D. major*, as the telococonch shape is typically of the *D. trispinosa* type and so is the embryonic part.

A telococonch length of about 7 mm equals that of *D. t.* forma *atlantica*. Probably the relatively northern position of this population influences this size, though Dupont (1979) stated that there is no latitudinal size variation in *D. t.* forma *trispinosa*, the taxon normally found in this area.

The colour pattern (fig. 2) is also dark, as in *D. t.* forma *atlantica*, but in the present material consists of two isolated colour nuclei on the ventral side, besides the colouration of the ribs. The aperture is wide, as in the forma *trispinosa*. The lateral spines are curved more caudad than in the other taxa except for *D. major*, where they are directed still further caudad. The length of the protoconch (= caudal spine) is identical with that in



Figs. 1-2. *Diacria* from 30°20'N 138°00'E. 1. Shape. 2. Colour pattern. Both figures from ventral.

D. t. forma *trispinosa* and *D. rampali*, while the width of the caudal spine mark is the same as in *D. rampali*.

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SUMMARY

Off Japan at 30°20'N 138°00'E five specimens have been found which seem to be intermediate between *D. trispinosa* forma *trispinosa* and *D. rampali* in colour pattern; the size of these specimens is larger than expected which may be due to the fact that hybrids sometimes grow larger than their parental species.

REFERENCE

DUPONT, L., 1979. Note on variation in *Diacria* Gray, 1847 with descriptions of a species new to science, *Diacria rampali* nov. spec., and a form new to science, *Diacria trispinosa* forma *atlantica* nov. forma. - *Malacologia* 18: 37-52.

	<i>D. t. atlantica</i> ¹	<i>D. t. trispinosa</i> ¹	<i>intermediates</i> ²	<i>D. rampali</i> ¹	<i>D. major</i> ¹
protoconch length	3.2	3.3	3.8	3.9	—
teloconch length	7.0	6.1	7.4	6.2	8.0
width at membrane	0.8	0.8	0.9	0.8	0.9
teloconch width	10.0	7.7	9.8	7.5	7.5
height of aperture	0.6	0.8	0.8	0.6	0.8
caudal flexure of lateral spines ³	1.12	1.20	1.31	1.00	1.60
aperture rim coloured	+	+	+	+	+
lateral ribs coloured	+	+	+	—	—
anterior ventral spot coloured	—	—	+	+	—
posterior ventral spot coloured	—	+	+	—	—

¹ After Dupont, 1979.

² Mean of five specimens.

³ Distance tip of spine to centre of aperture/distance tip of spine to caudal membrane.

Table 1. Comparison of the forms of *Diacria* discussed in the present paper; measurements in mm.

SAMENVATTING

Bij Japan werden op 30°20'N 138°00'O vijf exemplaren gevangen die intermediair lijken te zijn tussen *Diacria trispinosa* forma *trispinosa* en *D. rampali* voor wat hun kleurpatroon betreft. De afmetingen van deze exemplaren zijn wel groter dan die van de oudersoorten, maar hybriden vertonen soms het verschijnsel dat ze groter worden dan de oudersoorten.