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NOTES ON THE PELECYPOD GENUS *PLATOPIS* WHITFIELD

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In my study of "The pelecypod fauna of the 'Olive Locality' (Aptian) at Abeih" in the Lebanon Mountains, I gave an extended consideration (1946, pp. 195-196) of Whitfield's genus *Platopis* (1891, p. 399). At that time I noted that Whitfield had designated two of Conrad's species as types, neither of which he had at hand and both of which he had misinterpreted, and concluding that the designation of two species was in effect no designation at all, I selected *Platopis plicata*, one of the species described by Whitfield, as type, since it seemed most probable that it was upon this species that he had actually based his generic description.

Recent investigation in connection with the preparation of a part of the text for the forthcoming "Treatise on invertebrate paleontology" has revealed that a type had previously been selected for *Platopis* by Woodward, in the Zoological Record for 1892. Here the recorder states "type, *P. [Opis] undata* Conra." Since this was one of the two species originally mentioned as "types" by Whitfield, this is clearly a valid selection. *Opis undata* was described by Conrad (1852, p. 222, pl. 17, fig. 87) from the Mount of Olives, near Jerusalem, from strata that are now known to be of Maestrichtian, Upper Cretaceous age (Picard, 1930, p. 531, pl. 21, fig. 23a, b). It has been several times pointed out (Picard, *op. cit.*; Blanckenhorn, 1890, p. 82; 1934, p. 221) that this species belongs to the genus *Roudairia* Munier-Chalmas, 1881, and is in fact synonymous with, and a prior name for, the form variously called *R. auressensis* and *R. drui*, the type of *Roudairia*. The Woodward designation, therefore, makes *Platopis* a subjective synonym of *Roudairia*, the type of which should be cited as *R. undata* (Conrad).

The systematic position of "*Platopis*" *plicata* Whitfield (1891, p. 400, pl. 5, figs. 13-15), "*Platopis*?" *triangularis* Whitfield (1891, p. 401, pl. 5, figs. 16, 17), and "*Platopis*" *whitfieldi* Vokes (1946, p. 196, pl. 8, figs. 24-26) thus needs further consideration. As earlier (1946, p. 195) noted, "the number, relative position, shape and proportions of the teeth are... identical with those of *Eocallista* Douvillé, and the only characters that seem to separate the two genera are the strongly triangular outline and the sharp, generally carinate posterior umbonal ridge of [the species that I at that time referred to] *Platopis*." The characteristic external shape is in fact, save for the absence of a well-impressed escutcheon, very similar to that of the species referred to the Jurassic genus *Pronoella* Fischer (1887, p. 1087), new name for *Pronoë* Agassiz, 1843, *non* Guérin, 1838. This form has recently been discussed in detail by Cox (1944, pp. 103-111). The Lebanon species differ from *Pronoella* primarily in the details of the structure of the hinge. As shown in the figures of Cox (1944, text fig. 2B, p. 102), the hinge of the right valve of *Pronoella trigonellaris* *auctt.* lacks the small anterior cardinal (3a) of the Lebanon species; the median cardinal (1) of *Pronoella* is a " 'process or incipient tooth,' projecting from the posterior end of an elongate anterior lateral tooth (Ai), and with its apex well separated from the sub-umbonal apex of tooth 3b" (Cox, 1944, p. 103), while that of the present species is well developed, moderately heavy, and trigonal, with its apex adjacent to that of the posterior cardinal (3b) which also tends to be heavier than that of *P. trigonellaris* and shows no sign of any bifid condition such as marks the latter form. Finally, the anterior lateral groove in the Lebanon species is much longer and more prominent than in the Jurassic species.

The differences that separate the present forms from *Eocallista* are more difficult to evaluate. The hinge is identical with that of the forms which occur with it that I have referred (1946, pp. 192-195) to *Eocallista*. Unfortunately, I have not been able to examine specimens of the Portlandian species, *E. brongniarti* (Roemer), the type of *Eocallista* Douvillé (1921, p. 123), and my interpretation of the hinge of that form has had to be based upon Douvillé's rather unsatisfactory drawings. I am not acquainted with any species at present referred to *Eocallista* that show the markedly triangular shape and the strong umbonal carination of the species that I had previously referred to *Platopis*. However,

Cox (1944, p. 105) states that forms resembling some species of *Pronoella* in external characteristics "may, however, belong to such genera as *Isocyprina*, and *Eocallista*." It seems best, therefore, at present to refer the Lebanon species listed above to the genus *Eocallista*, *sensu lato*, pending possible future studies of species of that genus not at present available to me.

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