

and immature individuals and to perform breeding experiments on the two forms to establish whether or not actual interbreeding is possible, and if so, whether the hybrids are fertile. Until such time as the above-described tests can be accomplished, the best disposition of the case seems to be to propose that *G. o. oregonensis* and *G. o. lutea* be considered full species. As stated by Prosser (1957, p. 363), "most functional variation among animal populations appears to be either non-genetic or specific; relatively little is racial." Thus *G. o. oregonensis* becomes *G. oregonensis* (Dana, 1852) and *G. o. lutea* becomes *G. lutea* Menzies 1954. For complete descriptions of the two species, a review of their taxonomy and distribution and the disposition of types, the reader is referred to the paper by Menzies (1954a).

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#### SUMMARY

1. In the writer's opinion, Menzies' determination that *Gnorimosphaeroma oregonensis* consists of two subspecies is not valid, since there is no apparent morphological and ecological intergradation between the two, and their distribution is discontinuous.

2. There is no evidence that the two forms are ecotypes. The morphological differences between them are not correlated with any known factor in their environment, and *Gnorimosphaeroma oregonensis lutea* hatched and reared for three months in habitat conditions close to those of *G. o. oregonensis* retained their typical morphological configuration.

3. It is the opinion of the writer that until such time as extensive rearing and breeding tests can be performed, it is best to propose the elevation of the two subspecies to full species status.

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<sup>2</sup> It seems only fair to state that Dr. Menzies is not in agreement with the conclusions drawn in this paper concerning the elevation of *Gnorimosphaeroma oregonensis oregonensis* and *G. o. lutea* to species status.

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SUMMARY

1. In the writer's opinion, Menzies' determination that *C. oregonensis* and *C. californica* are conspecific is not valid since there is no apparent morphological and ecological intergradation between the two and their distribution is discontinuous.

2. There is no evidence that the two forms are ecotypes. The morphological differences between them are not correlated with any known factor in their environment and *C. oregonensis* specimens preserved when banded and tested for three months in habitat conditions close to those of *C. oregonensis* retained their typical morphological configuration.

3. It is the opinion of the writer that until such time as extensive testing and breeding tests can be performed, it is best to propose the elevation of the two subspecies to full species status.

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