

THE NUCHAL ORGAN, A PROBABLE
PHOTORECEPTOR, IN *EUPRYMNA SCOLOPES*
AND OTHER CEPHALOPODS

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CONCLUSIONS

The histological structure provides strong evidence that the nuchal organs are photoreceptors which, in all probability, have a function that is unique and separate from previously described photoreceptors in cephalopods. The organ probably performs the same, or similar, function in most cephalopods because of its extremely conservative position compared to that of photosensitive vesicles.

The nuchal organs may conform to the "posterior vesicle-organs" described by Sunderman (1990). If this is the case then the vesicles described by her do not form the dorsal photosensitive vesicles but remain near the surface of the animal. More data is needed to determine if the organs described by Sunderman (1990) are indeed precursors to the photosensitive vesicles, or if they form the nuchal organs.

The analytical portions of this study did not provide conclusive evidence of photoreceptive capabilities of the nuchal organs. This failure is probably attributable to the inadequate amount of time and resources which were available to conduct the analytical studies.