Fotóforos subcutáneos en el calamar gigante "Dosidicus gigas" (dOrbigny, 1835) Cephalopoda: Ommastrephidae) [

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text (article)

Analítica

In Dosidicus gigas small pale yellow ovoid inclusion bodies corresponded to subcutaneous photophores, which were embedded in the mantle muscle, at differing depths. At the histological level the photophores were composed of a photogenic tissue, which stained bright orange with Mallory triple stain. Surrounding it was a vacuolated tissue with numerous blood vessels which also intruded into the lightemitting tissue. Viewed with transmission electron microscopy the photogenic tissue was electron dense and homogeneously finely granular, in close contact with capillaries of the intruding vacuolar connective tissue. Subcutaneous photophores were observed over the whole squid on tentacles, arms, head, mantle and the fins, both dorsally and ventrally. On arms and tentacles the photophores were sparsely located along the axial nerve, and along the outer edge, with the exception of the fourth pair of arms, where the photophores, having the same location, were very numerous, forming an almost continuous row. A yellowgreenish luminescence could be observed on fresh or frozenthawed muscle in a dark room. The subcutaneous light organs of D. gigas have a very similar structure to those described for Sthenoteuthis pteropus. The only difference with S. pteropus is that this latter species has an additional connective tissue capsule around the phototophore. The structure of the photophore of D. gigas is very basic, and is probably the simplest one of the subfamily Ommastrephinae
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