area is 25½ m, which may also limit the vertical range of *Calliostoma.*

Additional material taken later seems to confirm the mucous sheath as a diagnostic field character of *Calliostoma gloriosum.* Two specimens in 22½ m off Hopkins both had the mucous covering. Several specimens of *C. annulatum* from this reef had dark blotches on the shells that proved to be a green alga, *Gomontia,* which is restricted to shells of mollusks. No other Calliostomas he observed had any incrustation. Both *C. ligatum* and *C. canaliculatum* lack the conspicuous mucous covering and have a less slippery feel than *C. gloriosum.* In the aquarium he observed both to show occasional "wipings" of the shell with the posterior part of the foot. They bent the foot upward and wiped around the shell, presumably to remove foreign material settled on it. Although they have no conspicuous gelatinous sheath, it may well be they deposit a thin layer of mucus on the shell, for they do have a somewhat slippery feel when picked up. This behavior has not been observed in *C. annulatum,* and fresh specimens of that species have no such slippery feel.

The evidence seems to be that the Calliostomas are omnivorous, both from observations in the laboratory and in the field. He watched a *Calliostoma annulatum* and a *C. canaliculatum* quickly devour the dead remains of a *Fissurella volcano* Reeve, 1849, that had died in the aquarium. Also in the aquarium he saw a *C. annulatum* engulf a specimen of the dorid *Polycera atra* MacFarland, 1905. While diving last summer, he saw a *C. annulatum* working on the carcass of a fish under the Monterey wharf.

Mr. Sellers, therefore, should be credited with evidence that the presumed herbivores of the genus *Calliostoma* also ingest animal food and that in some species mucous coverings protect the shell from becoming encrusted.

A Note on *Ocenebra lurida* (Middendorff)

BY

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FROM INFORMATION obtained at the annual meeting of the Western Society of Malacologists held at Pomona, California, in 1974, I learned that certain molluscan habits I had long considered to be well known had never been recorded in print. I present these brief notes in the hope that this will stimulate others with similar field data to bring forward additional unrecorded biological observations on some of our well known and more common species of Pacific Coast Mollusca.

I have collected *Ocenebra lurida* (Middendorff, 1848) from Prince William Sound, Alaska, south to Monterey Bay, California. With few exceptions the species is truly "lurid," reddish brown or reddish purple, through shades of orange to a light yellow. However, on the west coast of Vancouver Island I found a population the members of which were all an ashy grey to an ashy brown, while on the rocky reef area centering on Trinidad Head, California (41°05′N) the population is an extremely dark brown to black. Whether this coloration is due to diet or to some other biological factor I do not know. I have noted the *Ocenebra* feeding at only one locality and then it was upon the Great Chiton, *Cryptochiton stelleri* (Middendorff, 1846).

At Point Delgado (Shelter Cove) on the northern California coast (40°01′N), I noted that the girdle of this chiton was often scarred with pits, which had penetrated the brick-red periostracum into the orange flesh covering the valves. One day, just after dawn, I found *Ocenebra lurida* busily devouring the flesh of one of these chitons, but as soon as full day broke, the carnivorous snails immediately sought shelter in the rocky crevices or beneath rocks. Some of the pits in the girdle of the chiton were at least 1 cm in diameter and 3 to 4 mm in depth.

A casual examination of the *Cryptochiton* in the area revealed that probably up to half had been fed upon. Although *Ocenebra interfossa* Carpenter, 1864 and *O. sclera* (Dall, 1919) are present at Shelter Cove, I have never observed them feeding on the Great Chiton, and their coloration is usually dark brown and at times black.

Although pits in the mantle of chitons were noted at Trinidad, and although *Ocenebra lurida* is also present in the same intertidal levels, no definite predator-prey relationship between the two could be established.

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