

southern parts of the bay indicates that conditions there represent limits of tolerance for both and thus constitute a physiological barrier to the distribution of each. Whether the limiting factors operate on survival of adults or young, reproduction, or indirectly through food supply is a question that might be resolved by experiment.

The food, predators, and other biotic relationships of the Californian species of *Synidotea* have not been adequately studied. The frequent association of *S. pettiboneae* and *S. berolzheimeri* with the hydroid *Aglaophenia* indicates that they feed on it. *S. laticauda* doubtless feeds upon the gymnoblastic hydroid, *Bimeria franciscana* Torrey in San Francisco Bay (Miller 1968). The association of many species with bryozoans also leads one to suspect that these are a common source of food.

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