7. Changes in the Diet of *Pisaster giganteus* Resulting From Damage Inflicted by the Sea Otters. CHRISTOPHER HARROLD, University of California, Santa Cruz, CA.

Predation by sea otters upon *Pisaster giganteus* in a kelp forest off Hopkins Marine Station, Pacific Grove, California, results in the partial or complete loss of from 1 to 5 arms, which are eventually regenerated. Presently over 40% of the *P. giganteus* population suffer from this predation. The diet of uninjured starfish is mainly comprised of vermetids (*Petaloconchus montereyensis* = 23% of the diet, *Serpulorbis squamigerus* = 20%), tube worms (mainly *Sabellaria cementarium* = 23%), snails (mainly *Tegula pulligo* = 9%) and barnacles (*Balanus crenatus* = 21%). Despite the fact that *Petaloconchus* is the single most abundant macro-invertebrate in the kelp forest benthic community (comprising 58% of the total bottom fauna biomass) it is no more common in the diet than most other food categories, suggesting that *P. giganteus* is to some extent a selective feeder. Injured starfish show a significant shift from all other categories toward *Petaloconchus* (40%), indicating a decrease in food selectivity. In addition, at any point in time proportionately more injured animals are feeding than uninjured. Investigation is presently under way to test hypotheses explaining this change in feeding behavior.

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