

by its differences from *Taonius pavo*, viz.: "(1) the length and breadth of the fin, which is half the length of the body and six times as long as broad; (2) the large and almost regularly spherical suckers, which are several times larger than those of *Taonius pavo*, and especially on the lateral arms attain an astonishing size, so that the largest have a diameter as great as the breadth of the arm; and (3) the presence of a toothed marginal membrane along all the arms."

In every one of these characters it will be noticed that Professor Verrill's specimen differs from *Taonius hyperboreus*, and inclines rather to *Taonius pavo*; and further, a careful comparison of his figures and description with those of *Loligopsis pavo* (Lesueur), places it beyond all reasonable doubt that these are identical.

The general shape of the body is practically identical in the two forms, but the fin is produced in Verrill's drawing into "a long acute tip," which does not appear in Lesueur's, but which may very well have been present originally, for the posterior extremity of the type specimen has been injured.

In both specimens the arms are not complete, "except those of the third and fourth pairs, which are nearly equal in length, the ventral ones a little the shortest and most slender." In both specimens, too, "the arms are all united together by a thin, delicate basal web, which extends up some distance between the arms, . . . and then runs along the sides of the arms, as broad, thin, marginal membranes."

As regards the horny rings of the suckers, d'Orbigny figures two from the base of an arm which may have been taken from this species, and which have square-cut teeth somewhat variable in number. The sucker figured by Verrill from the middle of one of the lateral arms (third pair) resembles these very closely, and he adds that "toward the tips of the arms the smaller suckers again become deeper, with more contracted apertures, and with a few more prominent denticles on the rings;" but he does not allude to the conspicuously four-toothed suckers characteristic of *Taonius cymoctypus*, which he could not fail to have noticed had they been before him.

The general shape of the sucker, too, agrees fairly with that figured by Lesueur.

Verrill's account of the pen of his *Desmoteuthis hyperborea* describes that of *Loligopsis pavo* (Lesueur), very well, for the latter, like the former, terminates posteriorly in a hollow cone. This is not shown in Lesueur's drawing, though it is quite evident in the specimen; the drawing indeed is merely a sketch giving a general idea of the form of the pen, which has never been removed from the specimen.

The passages in quotation marks above are taken from Verrill's description, and when compared with d'Orbigny's figures, they leave, I think, little room for doubt that the two species in question are the same.