

Name of Species.	Depth in Fathoms.	Number of Eyes.	Condition of the Eyes.	Observations.
<i>Nymphon hamatum</i> , Hoek, . . .	1375-1600	...	...	Oculiferous tubercle also rudimentary.
<i>Colossendeis gigas</i> , Hoek, . . .	1375-1600	...	...	Oculiferous tubercle of the younger specimens higher, and furnished with two rudimentary spots.
<i>Colossendeis gracilis</i> , Hoek, . . .	1375-1600	...	...	Oculiferous tubercle much elevated, with four lenses.
<i>Phoxichilidium pilosum</i> , Hoek, . . .	1600-1950	Four.	Two large ones directed forward, two very small ones backward; tubercle elevated and acute.	
<i>Nymphon meridionale</i> , Hoek, . . .	1675	„	Distinctly pigmented; tubercle not very high.	
<i>Phoxichilidium oscitans</i> , Hoek, . . .	1675	„	Two very large ones and two small ones.	
<i>Phoxichilidium mollissimum</i> , Hoek, . . .	1875	„	Two extremely large ones, kidney-shaped, directed forward; two very small ones directed backward.	
<i>Nymphon procerum</i> , Hoek, . . .	2160	...	...	Two small spots are present on the tip of a low tubercle.
<i>Nymphon longicollum</i> , Hoek, . . .	2225	...	...	Oculiferous tubercle high, with two rudimentary spots without pigment.
<i>Colossendeis media</i> , Hoek, . . .	2225	...	...	Oculiferous tubercle very high and acute.
<i>Colossendeis brevipes</i> , Hoek, . . .	2650	...	...	Oculiferous tubercle high and acutely pointed.

What we learn from this list is that it is a common feature for the shallow-water species to have four distinct eyes; and for those inhabiting a depth exceeding 400 fathoms to have no eyes, or to have rudimentary eyes without pigment. While exceptions to this rule are rare in the shallow-water species, they are by no means unfrequent in the deep-sea species. As to the structure of those eyes which may be called rudimentary, they often have a distinct lens—a rounded spot marked by its brightness; they are quite destitute of pigment, and, as I learned from a section of the oculiferous tubercle of *Nymphon robustum*, Bell, the small eye has no retina, and is filled up with a mass of detached connective tissue.

In those species which are furnished with distinct eyes, the size of those on the same tubercle is not always the same. In *Nymphon strömii*, Kröyer, the eyes which are directed forwards are slightly larger than those which are directed backwards, but this difference is much more marked in the species of *Phoxichilidium*. This difference in size—as is generally known—is a common occurrence. Grenacher<sup>1</sup> has shown in the simple eyes of the Arachnida and also of the larvæ of many insects, that this difference in size is often accompanied by extremely interesting differences in the minute structure. It

<sup>1</sup> Grenacher, H.—Untersuchungen über das Sehorgan der Arthropoden, 4e, Göttingen, 1879.