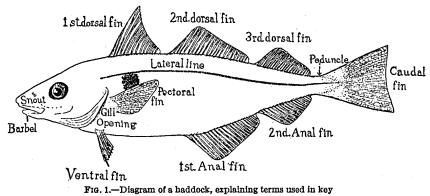
## USE OF THE KEYS

The various fins and other structures mentioned in the keys are named in the accompanying outline of a haddock, and the simplest way to explain the use of the keys is to use that species as an example, running it down with the outline at hand for reference.



Turning to section 1, Key A (p. 11), the fish in question evidently fits the second alternative, for it has bony jaws and pectoral fins and is not formed like an eel, which refers us to section 3. As our fish does not have a tubular snout this leads us to section 4, and this in turn to section 5, since neither jaw is greatly prolonged. There being only one gill opening on each side we go from section 5 to section 7, and from section 7 to section 8, for there is a distinct tail. Since the fish has no sucking plate on the top of the head this leads to section 11, and this in turn to section 12 because the tail fin is nearly symmetrical in outline. Since the fish is not clothed in an armor of bony plates we are referred by the second alternative of section 12 to section 13. In our specimen the anal fin is clearly separated from the caudal, and section 13 therefore refers us to section 14. As all the fins are supported by rays we must go on to section 15, and from there to section 18 as there are no fleshy flaps or tags on the sides of the head.<sup>4</sup> Our fish does not lie flat on one side (that is, it is a round, not a flat fish) and therefore it fits the second alternative under section 18, which refers it to section 19, and as there is more than one separate dorsal fin, this leads to Key F, page 13.

As we have already determined, all the dorsal fins have soft rays, and since there are no spines in any of the fins (a fact easily determined by feeling them), this sends us to the key to the cod and silver hake families (p. 385). Turning to the first section of the latter we find that the fish fits the first alternative (3 dorsal fins and 2 anals), which refers it to section 2, and here the black lateral line and the dark blotch on each shoulder name it a haddock.

Any other Gulf of Maine species is to be named in the same way, starting with section 1, Key A, and following through the appropriate alternatives as they refer it from section to section.

<sup>&</sup>lt;sup>4</sup> There is a barbel on the chin but this is very different in appearance from the skin flaps around the jaws characteristic of the few species that fall under the first alternative.