# ON THE JUVENILES OF *EUTHYNNUS ALLETTERATUS* RAF. APPEARED IN TURKISH WATERS IN 1959

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The juveniles of *Euthynnus alletteratus* RAF. were not known from Turkish waters up to 1959. In that year, they appeared and were caught in abundance in the Dardanelles, in the Sea of Marmara near Istanbul, and also in the black Sea near the Bosporus.

The period of catch was from the middle of august up to the end of the first week of october in the Dardanelles, from the last week of august up to the second half of september in the Sea of Marmara near Istanbul. In the black Sea near the Bosporus, one catch yielding about 200 fish, took place mid september

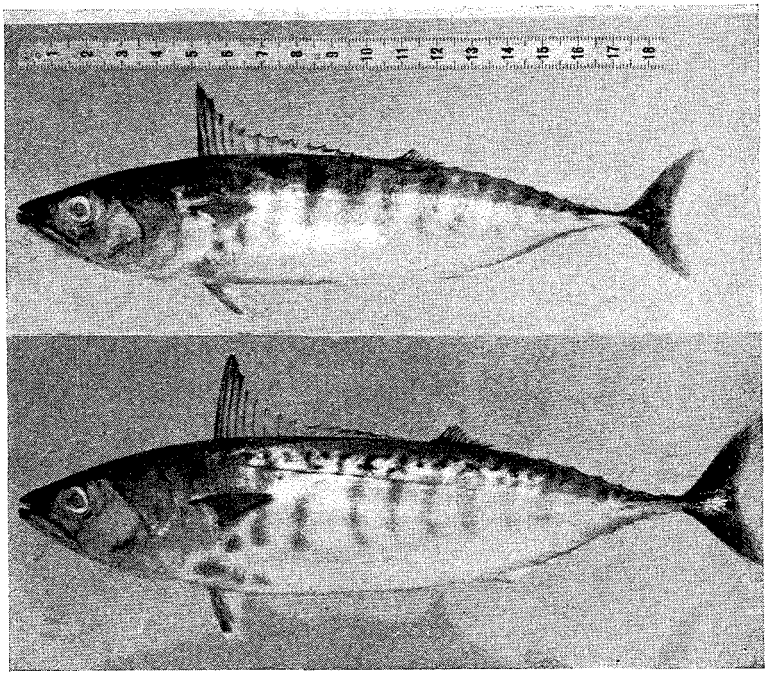

FIG. 1. — *The juveniles of* Euthynnus alletteratus RAF. from the Sea of Marmara (1) *and Dardanelles* (2).

The juvenile fish caught in the Sea of Marmara near Istanbul were smaller than those caught in the Dardanelles. Figure 2 shows the lenght (LF) frequencies of 300 juvenile fish measured from the catches in each area mentioned above.

The specific characters of these juvenile fish are as follows (fig. 1).

Body elongate, fusiform, somewhat compressed ; dorsal and ventral outlines evenly curved ; trunk naked, except corselet and lateral line ; head large, compressed, tapering to

a conic snout ; mouth large, slightly oblique ; lower jaw very slighty in advance of upper; jaws with a single row of small and inward curved conic teeth ; similar teeth on palatines, non on vomer and tongue; maxillary well exposed, rounded posteriorly, reaches to or slightly past center of pupil ; front nostril is a small pore, close to eye than snout tip, hind one short vertical slit close before eye ; interorbital broad and somewhat convex ; snout slightly depressed on mid lenght ; eye small, rounded, nearly at first 2/5 in head ; adipose eyelids little developed ; gill opening wide, menbranes not united, free from isthmus ; gill 4, slit behind fourth ; gill rakers more or less strong, like blades, the longest raker a little shorter than eye diameter ; caudal peduncle very slender, depressed, with a well developed keel on each side ; a smaller lenghtwise keel at base of each lobe of caudal ; lateral line a little arched over pectoral, then running a slanting course to caudal peduncle ; two dorsal fins ; first dorsal spinous, long,

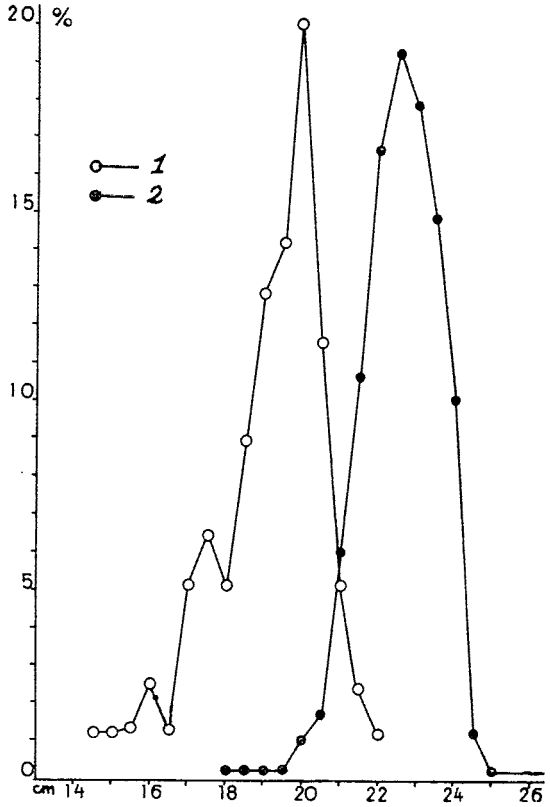


FIG. 2. — *Lenght frequencies of the juveniles of* Euthynnus alletteratus RAF. *from the Sea of Marmara* (1) *and Dardanelles* (2).

depressible in a groov, gradually down behind ; second dorsal soft and shorter ; interspace between first and second dorsals very short ; anal like second dorsal ; both of second dorsal and anal followed by finlets, similar and detached ; pectoral falciform, short, inserted about center level of eye; a shallow depression on trunk behind pectoral where into pectoral is applicable ; ventral short.

Colour steel-blue above, silvery to whitish below ; about 12-15 dark stripes start from dorsal outline and run vertically down and disappear gradually below lateral line ; specimenes about longer than 18 cm having markings on each dorsal side above lateral line ; area between

pectoral and ventral fins with 1-4 irregular dark spots ; dorsals, pectoral, and caudal dusky ; ventral partly or completely pale of silvery white ; anal whitish ; ventral finlets and end parts of dorsal finlets pale or whitish.

Metric and meristic characters are shown on the table.

| V | R | M | S.D. | S.E. |
|---|---|---|---|---|
| LF/LL | 3.9795-4.3095 | 4.1520 | 0.1044 | 0.0233 |
| LF/LP | 3.7255-4.1136 | 3.9086 | 0.2895 | 0.0647 |
| LF/LD1 | 3.5454-3.7917 | 3.6642 | 0.0642 | 0.0139 |
| LF/LV | 3.5577-3.8775 | 3.7134 | 0.0768 | 0.0171 |
| LF/LD2 | 1.6956-1.8200 | 1.7615 | 0.0283 | 0.0063 |
| LF/LA | 1.5546-1.6095 | 1.5726 | 0.0100 | 0.0022 |
| LF/H | 5.0000-5.4516 | 5.1950 | 0.1300 | 0.0291 |
| LL/LO | 3.5000-3.8333 | 3.6799 | 0.1245 | 0.0278 |
| LL/OO | 4.1666-5.2222 | 4.4978 | 0.2789 | 0.0624 |
| LL/IO | 3.8181-5.1111 | 4.2842 | 0.3154 | 0.0724 |
| LL/PP | 2.0454-2.4118 | 2.1911 | 0.0860 | 0.0192 |
| D1 | 14-16 | 15.4000 | 0.5831 | 0.1304 |
| D2 | 11-13 | 12.1500 | 0.5723 | 0.1279 |
| P. | 25-27 | 26.3000 | 0.6403 | 0.1432 |
| A | 12-14 | 13.5000 | 0.4472 | 0.1000 |
| Dorsal finlet | 7-9 | 8.0000 | 0.3162 | 0.0707 |
| Ventral finlet | 7-8 | 7.05000 | 0.2225 | 0.0497 |
| C | X + 17 + X | — | — | — |
| Brankiospin | 35-39 | 37.0500 | 1.3772 | 0.3079 |
| Vertebrae | (9-11) + 1 + (24-28)<br>20 + 19 (18) = 38-39 | 38.9500 | 0.2179 | 0.0487 |

TABLE I.

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