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505

LEAFLET No. 1.
Fisheries.

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(Department of Agriculture)

THE
FRY OF SALMON AND TROUT

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Every year large numbers of salmon fry (parr and smolts) are destroyed, sometimes quite unwittingly, by anglers who are unable to distinguish between salmon fry and young trout. Under Section 73 of the Fisheries (Ireland) Act, 1842, it is illegal to take the fry of either salmon or trout. The term "trout fry" has not yet received a legal interpretation, but in some Fishery Districts the taking of immature trout below a certain size is prohibited by by-law (see the current Abstract of Fishery By-laws, published by the Stationery Office). The fry of salmon are legally deemed to include also those fish locally called "jenkin" and "gravelling."

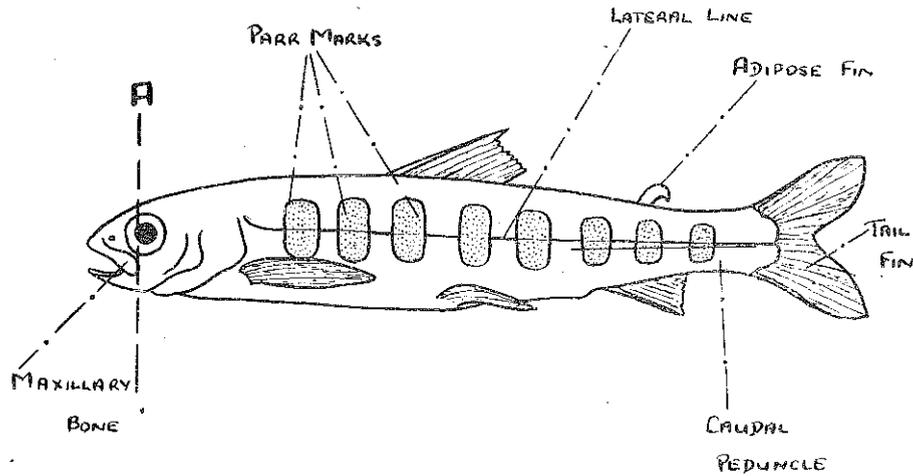
In waters where trout reach a large size, say over one pound in weight, there is, apart from any legal obligation, a moral obligation to return small trout, say less than eight inches in length, in order to ensure a supply of large trout for future years. An example of the comparative weights of fish at the age of two and three years will illustrate the advisability of returning, voluntarily, small trout to rivers and lakes in which they grow to a good size, *e.g.*, in the limestone waters. In such waters a length of at least eight inches would be reached at the end of two years. Assuming this growth rate to be fairly uniform the fish would, at the end of three years, have reached a length of approximately twelve inches. Although the length has increased from eight inches to twelve inches or by 50 per cent., the weight will have increased from 3-3½ ozs. to approximately 11 ozs. or by about 240 per cent.

It must also be remembered that the fry of sea (white) trout are, in general, indistinguishable from young brown trout and in one Fishery District the killing of the fry of sea trout, frequently called "pinks," below a certain size is prohibited by by-law. *Where sea trout frequent a river all trout less than, say, seven inches in length should be returned alive to the water.*

Before removing the salmon fry or young trout from the hook, the angler should thoroughly wet the hands to prevent damage to the small fish caused by the removal of scales and protective slime, which frequently happens if the hands are dry. Fish touched with wet hands have a much better chance of survival than those released by dry hands. In every case the greatest care should be exercised to prevent more damage than necessary in removing the hook from the small fish and when the hook is removed the fish should be placed in the water and not thrown on to it.

The few brief notes on pages 4 and 5 are intended as a guide for distinguishing, where necessary, between salmon fry and young trout, but wherever doubt exists the fish should be returned to the water. Failure to identify the species correctly is not accepted as a defence in any legal

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SALMON FRY (PARR).

MOUTH:—Rather small, nearly twice the diameter of the eye. A line drawn perpendicularly from the hindmost extremity of the maxillary bone will usually cut the eye (see A above).

EYES:—Large, set well forward in the head.

BODY:—Slightly built, caudal peduncle slender.

TAIL:—Distinctly forked with pointed wings.

SPOTS:—Not more than four black spots on the gill covers. Few spots below the lateral line. One red spot between each parr mark and few elsewhere.

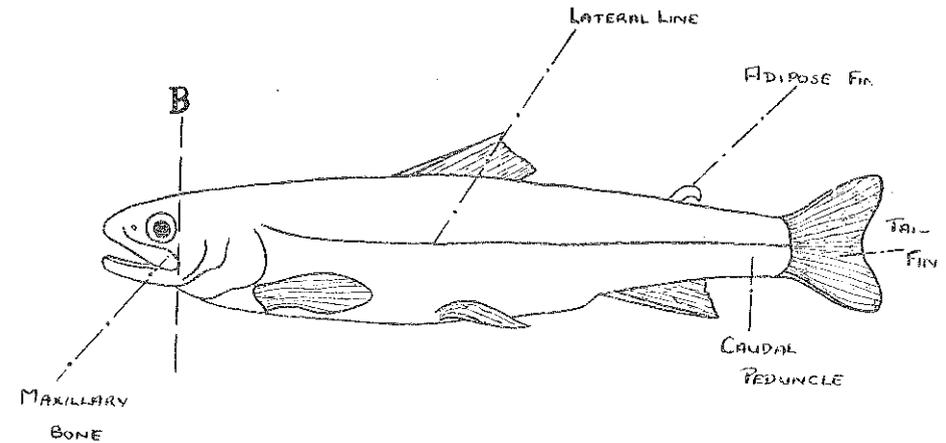
ADIPOSE FIN:—No red or orange colour.

HEAD:—Fore part short, gill covers comparatively long.

PARR MARKS:—Dark in colour, regularly placed and definite, eight to twelve in number.

SALMON SMOLTS

Some of the salmon parr in the months from March to June, inclusive, acquire a silvery coating which obliterates the parr marks and all the spots except the spots on the gill covers. At this stage when the fish are migrating to the sea they are called smolts.



TROUT.

MOUTH:—Rather large, $2\frac{1}{2}$ to 3 times the diameter of the eye. A line drawn perpendicularly from the hindmost end of the maxillary bone usually misses the eye (see B above).

EYES:—Small in proportion to the size of the head.

BODY:—Thicker than in the salmon fry, caudal peduncle thick.

TAIL:—Not distinctly forked, the points of the wings rounded.

SPOTS:—More than four black spots on the gill covers. Numerous spots above and below the lateral line. Red spots irregularly placed on various parts of the body.

ADIPOSE FIN:—Tipped with red or orange.

HEAD:—Fore part long, head less pointed than in salmon fry.

PARR MARKS (not shown in above diagram):—Irregular in size and distribution. Not well defined but usually less numerous than in salmon fry.

SEA (WHITE) TROUT SMOLTS

The fry of sea trout acquire a similar coating to those of salmon and migrate to the sea. The numerous spots on the gill covers are still present and this affords a means of identification of the smolt of sea trout from that of salmon.

action that may be taken by the appropriate Fishery Authority charged with protection and preservation in the particular district. The characters assigned overleaf to each species are average characters. Intermediate forms do not represent hybrids, but merely the extreme variation of the species.

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