

A brief guide to salmon

Salmon & Grilse

Juvenile salmon leave the river as 'smolts' in early summer and migrate to feeding grounds in the ocean. Salmon from the River Dee and other Scottish rivers generally migrate to grounds off the South West Greenland coast, the Faroe Islands, into the Norwegian Sea or to waters off North West Scotland. At some point the salmon leave these feeding grounds and return to their native river, preparing to spawn.



The journey to SW Greenland is a long one – 1500 miles each way – and the salmon that undertake that journey spend at least two winters at sea, after leaving the river in early summer. On their return to the river they are called Multi Sea Winter (MSW) salmon, normally abbreviated to 'salmon'. Of the fish that feed off of the Faroe Islands and NW Scotland, some will spend two Winters at Sea (2 SW) and return as salmon, but others will spend only a single winter at sea, particularly those feeding off the Scottish coast. These one Sea Winter (1 SW) fish are termed grilse.

Approximately half of the rod-caught fish on the Dee in the summer and autumn periods are grilse. Grilse tend to be dominant in the Dee's rod catch in the months of August and September, are present in high numbers in July and October and present in low or very low numbers between April and June.

Quick facts

Grilse: A salmon that has spent one winter at sea

Multi Sea Winter Salmon, or 'Salmon': A salmon that has spent at least two winters at sea

Spring Salmon: Has spent at least two winters at sea and entered the river in the winter – spring period, following slow ('winter') growth at sea

Summer Salmon: Has spent at least two winters at sea and has undergone fast ('summer') growth at sea prior to entering the river

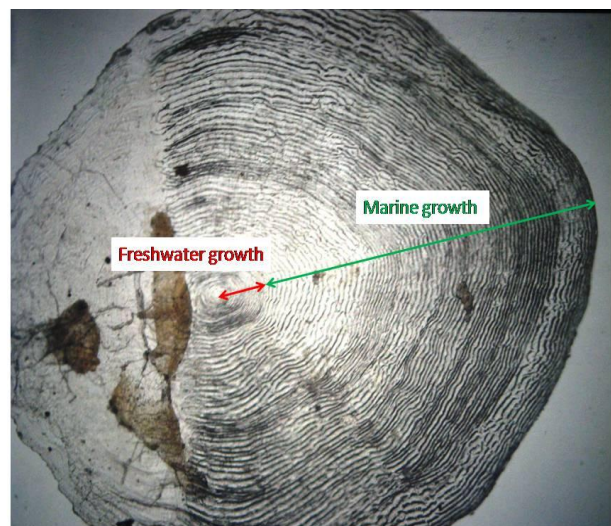
Previous Spawner: Has entered the river and spawned, returned to sea and then entered the river a second time

Kelt: A salmon or grilse that has spawned

Baggot/Rawner: Salmon or grilse that is sexually mature but physically unable to spawn

Scales

The scales of fish provide an insight into their life. Salmon scales show how many years the fish has spent at sea, how many in the river as a juvenile and if it has spawned previously. In addition, scales indicate approximately when the fish entered the river as an adult.



Scale from a 3 Sea Winter (SW) Spring salmon

Spring Salmon

The Dee's Spring salmon fishery, for which the River Dee is world-renowned, operates between 1st February and 31st May. The definition of a Spring salmon, technically, is a salmon that has entered the river during the winter/spring period and before resuming fast ('summer') growth at sea in its final year. Spring salmon generally enter the Dee before the end of May, although some Spring salmon will enter the Dee through the first half of June, whilst some 'Summer' salmon enter the Dee from mid-May onwards.

All Spring salmon are MSW salmon; on the Dee, approximately 80% of the rod caught Spring salmon are 2 SW salmon with the remainder (20%) being 3 SW salmon. 4 SW salmon may occur but are extremely rare. In contrast, the summer and autumn MSW salmon are almost exclusively 2 SW fish.

Juvenile Salmon

Salmon spend between one and three years in the river Dee, prior to migrating down-river as a smolt. 75% of the rod caught salmon on the Dee have spent 2 years in the river before smolting, while the remainder smolt after 3 years in the river (24%) and a few (1%) smolt after one year. However, more of the Spring salmon and more salmon caught in the Upper Dee have spent 3 years in the river as a juvenile. This is likely to be because the number of years taken to reach the smolt stage is influenced by feeding opportunities, climate and weather conditions, making growth harder in the upper catchment.



Previous Spawners

Some salmon, particularly females, may survive after spawning, return to sea and subsequently re-enter the river to spawn a second time. Evidence from scales shows that in recent years just over 1% of the rod caught salmon have spawned previously. These previous spawners are not necessarily large fish. They are identified based on their scale markings; however, an indication of a previous spawning is a fresh fish with gill maggots.



Scale Sampling

This information has been obtained through a scale sampling programme on the River Dee, carried out by the River Dee Trust and relying on help from ghillies and angling club representatives who collect scales from approximately 10% of the salmon caught on the Dee. The above information relates to scales collected and analysed from salmon between 2007 and 2010. The scale programme is on-going and will be able to detect changes that occur in the life cycle of the Dee's salmon.