

Site Name: Unshin River SAC

Site Code: 001898

The Unshin River runs from Lough Arrow north to Ballysadare Bay, Co. Sligo. The river is largely undrained and unaltered along much of its course. The marginal vegetation associated with the river is also included in the site, along with other semi-natural habitats adjacent to the river (included in order to enhance its protection). Many of these habitat types are interesting and of conservation value in their own right. Other watercourses included within the site are the Owenboy/Owenbeg and a number of smaller tributaries. The Unshin River flows across a number of geological boundaries between sandstone, shales and limestone. This results in unusual physico-chemical qualities which in turn are reflected in the rich and varied plant and animal populations.

The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive (* = priority; numbers in brackets are Natura 2000 codes):

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| [3260] Floating River Vegetation |
| [6210] Orchid-rich Calcareous Grassland* |
| [6410] <i>Molinia</i> Meadows |
| [91E0] Alluvial Forests* |
| [1106] Atlantic Salmon (<i>Salmo salar</i>) |
| [1355] Otter (<i>Lutra lutra</i>) |

The Unshin River supports an excellent example of floating river vegetation. The diversity of aquatic macrophytes is exceptional, and to a certain extent the unusual combinations and richness of species can be accounted for by the good quality water being discharged from Lough Arrow upstream. The lake also imparts a stabilising influence on the flow regime and provides a source of lacustrine species – for example, Long-stalked Pondweed (*Potamogeton praelongus*). Plant species present which indicate base-rich conditions include Lesser Water-parsnip (*Berula erecta*), Blunt-fruited Water-starwort (*Callitriche obtusangula*), Fan-leaved Water-crowfoot (*Ranunculus circinatus*) and the internationally rare River Water-dropwort (*Oenanthe fluviatilis*). Species such as Lesser Marshwort (*Apium inundatum*), normally associated with more acidic peat pools, also occur. Fen and floating mire communities are represented by Bogbean (*Menyanthes trifoliata*), Cowbane (*Cicuta virosa*), Yellow Loosestrife (*Lysimachia vulgaris*) and Water Avens (*Geum rivale*). A rare and unusual alga, *Nostoc parmelioides*, is also present.

There are a number of areas of woodland, many of which flood, included within the site. These wet alluvial woodlands are found on water-logged soils and species such as Alder (*Alnus glutinosa*), Ash (*Fraxinus excelsior*), willows (*Salix* spp.), Pedunculate Oak (*Quercus robur*) and birch (*Betula* spp.) are common. Occasionally, Lime (*Tilia* sp.) and Horse-chestnut (*Aesculus hippocastanum*) are found also. The ground flora is diverse in places, and species such as Meadowsweet (*Filipendula ulmaria*), Wild Angelica (*Angelica sylvestris*), Lesser Celandine (*Ranunculus ficaria*), Wood Anemone (*Anemone nemorosa*), Yellow Iris (*Iris pseudacorus*), Bracken (*Pteridium aquilinum*), Reed Canary-grass (*Phalaris arundinacea*), Soft Rush (*Juncus effusus*), Common Valerian (*Valeriana officinalis*), Bramble (*Rubus fruticosus* agg.), Enchanter's-nightshade (*Circaea lutetiana*), Purple Loosestrife (*Lythrum salicaria*), Golden Saxifrage (*Chrysosplenium oppositifolium*), Greater Tussock-sedge (*Carex paniculata*), Remote Sedge (*Carex remota*), Bottle Sedge (*C. rostrata*), Common Nettle (*Urtica dioica*), Hart's-tongue (*Phyllitis scolopendrium*), Broad Buckler-fern (*Dryopteris dilatata*) and Lady-fern (*Athyrium filix-femina*) are all found. A number of non-native shrub species, some of which are invasive, are found: Snowberry (*Symphoricarpos albus*), Rhododendron (*Rhododendron ponticum*) and Cherry Laurel (*Prunus laurocerasus*). The non-native herbs Japanese Knotweed (*Reynoutria japonica*) and Giant Hogweed (*Heracleum mantegazzianum*) have also been recorded.

Areas of grassland, ascribable to the E.U. Habitats Directive Annex I types: Orchid-rich Calcareous Grassland and *Molinia* Meadows, have been reported at Cloonmacduff, according to the Irish Semi-natural Grasslands Survey, 2010. There are also extensive wetlands within this site, and one area contains the Red Data Book plant Swamp Meadow-grass (*Poa palustris*).

The Unshin and its tributaries form a very important system for Atlantic Salmon, a species that is listed on Annex II of the E.U. Habitats Directive. The Owenboy/Owenbeg river is the principle spawning and nursery tributary for the system's salmon fishery. The Unshin and its tributaries is the most important salmon producing river in Co. Sligo. The system also supports a good population of Trout.

The Annex II species Otter has been recorded in and near this site.

Two notable bird species which occur along the river are Whooper Swan, which feeds in the wet grasslands that flank the river, and Kingfisher. Both are listed on Annex I of the E.U. Birds Directive.

The trophic status of the river increases downstream indicating that some enrichment is taking place. However, the quality of the Unshin River and particularly its aquatic macrophyte communities, make it rare in both an Irish and European context, and it is considered one of the most pristine rivers in the country.