

APPENDICES

Appendix C

Flora and Fauna of the South Eastern River Basin District

Flora and Fauna

There are a number of protected flora and fauna species in the River Basin District.

Carlow

The threatened Yellow Archangel (*Lamiastrum galeobdolon*) occurs in the Slaney valley, a species which is listed in the Irish Red Data Book. This species is found in hedges and woods in the south-east of Ireland.

The Barrow Valley at Tankardstown is of interest due to the aquatic River Barrow and Grand Canal habitats, bordering stretches of freshwater marsh. Wet and dry grassland and small strips of mixed woodland and scrub add habitat diversity to this site.

Mixed woodlands occur at Carrickduff and Coolaphuca in Bunclody. Oak trees, which make up the greater part of the canopy, were originally planted and at the present time are not regenerating actively. In time, if permitted, the woodland will probably go to Beech. A fair number of Yew (*Taxus baccata*) trees have also reached a large size and these, together with Holly give to the site the aspect of a south-western Oak wood. The lowest ground in the wood is occupied by Birch and Hazel scrub. These sites provide the largest area of deciduous tree canopy in Co. Carlow.

North Tipperary

Kilduff - Devils Bit Mountain situated approximately 6 km north-west of Templemore, includes upland grassland with herb rich, calcifuge species, heath and woodland habitats. Populations of rare, Small-white Orchid (*Pseudorchis albida*) protected under the Flora Protection Order (1987) occur in areas of unimproved grassland. The Peregrine Falcon (*Falco peregrinus*), a species protected under Annex I of the EU Birds Directive also breeds within the site.

Kildare

Pollardstown Fen located on the northern margin of the Curragh is the largest spring fed fen in Ireland and owing to the rarity of the habitat and the number of rare organisms found there, the site is rated as internationally important. Rare plant species include the Narrow-leaved Marsh Orchid (*Dactylorhiza traunsteineri*), the Fly Orchid (*Ophrys insectifera*), and the Broad-leaved Bog Cotton (*Eriophorum latifolium*). In terms of fauna there are numerous species of breeding birds, the most significant of which are the Reed Warbler (*Acrocephalus dumetorum*) and Garganey (*Anas querquedula*), both rare breeding species in Ireland. In addition the fen provides a habitat for the Otter (*Lutra lutra*) and Brook Lamprey (*Lampetra planeri*), two species listed in Annex II of the EU Habitats Directive.

Ballynafagh Bog, located 1 km west of Prosperous, represents the most easterly site remaining in Ireland with a high proportion of intact raised bog habitat. The site is within the territory of a breeding pair of Merlin (*Falco columbarius*), a species listed in Annex I of the EU Birds Directive. Ballynafagh Lake, although originally a reservoir, has developed very natural vegetation with some interesting plant

species. The site supports an important population of the Annex II snail, (*Vertigo moulinsiana*) and is also of importance for birds.

Limerick

The Galtee Mountains are the highest range of inland mountains in Ireland. Heath (*Calluna vulgaris*) is the main habitat, and the north facing slopes, forming the southern extent of the Aherlow Valley, are of primary importance as they support arctic-alpine communities with some rare species. The rare Small-white Orchid, (*Pseudorchis albida*) protected under the Flora Protection Act, 1987, Mountain Rock-cress (*Cardaminopsis petraea*) and Alpine Saw-wort (*Saussurea alpina*) have been recorded on the site. These species are included in the Red Data Book. The site supports breeding Peregrine (*Falco peregrinus*), a species protected under the EU Birds Directive.

Trees and hedgerows are an integral part of the countryside and there is an increasing awareness of their value.

Offaly

There is a wide variety of wildlife ranging from wild goat and deer herds in the uplands of the Slieve Bloom through foxes, badgers and otters. Bird life is also diverse with all the native Irish birds represented as well as migratory species.

The Slieve Bloom Mountains contains large areas of intact blanket bog, an increasingly rare habitat in Europe. The intactness of the blanket bog is remarkable and is mirrored in few other places in Ireland. Breeding pairs of Peregrine Falcon, an Annex I species of the Birds Directive, occur in the upland areas of this site.

The Long Derris is an esker ridge located south of Edenderry. This site is of botanical interest due to the presence of good quality dry, calcareous grassland and interesting gravel pit flora. An important feature of this site is the presence of the rare, Red Data Book species, Blue Fleabane (*Erigeron acer*) and Basil Thyme (*Acinos arvensis*) and Green-winged Orchid (*Orchis morio*) both legally protected under the Flora Protection Order.

Birdlife is also very prominent in the area with breeding Nightjar, an EU Habitats Directive Annex I species, and Partridge (*Perdix perdix*), an endangered species in Ireland, all inhabiting the site.

Kilkenny

The rare and legally protected Nettle Leaved Bellflower (*Campanula trachelium*) is found only on the edges of the River Barrow and Nore. Other important plant species include the Green Winged Orchid (*Orchis morio*) and Northern Yellow-cress (*Rorippa islandica*). Kilkenny is home to four species of bat with a significant roost of Natterer's bat (*Myotis nattereri*) in Mothel Church Coolcullen. There

are a number of important habitats and communities including the Loughans which is the only large turlough in the South East of Ireland and the highest in Ireland. It is located 3km east of Urlingford below the Slieve Ardagh Hills.

The Rivers Suir, Barrow and Nore are of particular conservation interest for the presence of a number of Annex II animals (European Communities Habitats Directive) including freshwater Pearl Mussel (*Margaritifera* sp.), freshwater crayfish (*Austropotamobius pallipes*), Salmon (*Salmon solar*), Thwaite Shad (*Alosa fallax*) and three species of Lamprey (*Lampetra fluviatilis*, *Lampetra planeri* and *Petromyzon marinus*). The Barrow and Nore are the only sites in the world where the hardwater form of the Pearl Mussel is found.

Laois

The Slieve Bloom Mountains provide an excellent habitat for Peregrine Falcon, a species listed in Annex I of the European Birds Directive. Breeding pairs are known to occur here. The Curragh and Goul River Marsh is important due to the diversity of plant communities present. The presence of the rare Pondweed in the marsh area and the use of meadowlands by Greenland White-fronted Geese (*Anser albifrons flavirostis*) upgrade its importance.

The main channel of the River Barrow and River Nore are designated as a SAC. The site is very important for the presence of a number of EU Habitats Directive Annex II animal species such as Freshwater Mussel, Freshwater Crayfish, Salmon and Otter. This is the only site in the world for the hard water form of the Pearl Mussel (*Margaritifera* sp.), (*m. durrovensis*) and one of only a handful spawning grounds in the country for Twaite Shad (*Alosa fallax*). The EU Habitats Directive Annex II plant species, Killarney Fern (*Trichomanes speciosum*) also occurs at this site.

South Tipperary

The rare and legally protected Small-white Orchid, (*Pseudorchis albida*), Mountain Rock-cress (*Cardaminopsis petraea*) and Alpine Saw-wort (*Saussurea alpina*) are found in the Galtee Mountains. The Galtee Mountains supports breeding Peregrine, a species listed on Annex I of the EU Birds Directive. The Anglesey Road cSAC is of particular importance for the good quality examples of species-rich, unimproved upland grassland found. This habitat is becoming increasingly rare in Ireland and Europe.

The River Suir is of particular conservation interest for the presence of a number of Annex II animals (European Communities Habitats Directive) including freshwater Pearl Mussel (*Margaritifera durrovensis*), freshwater crayfish (*austropotamobius pallipes*), Salmon (*Salmon solar*), Thwaite Shad (*Alosa fallax*) and three species of Lamprey (*Lampetra fluviatilis*, *Lampetra planeri* and *Petromyzon marinus*).

Waterford City

The riverine areas along the banks of the transitional waters of the Suir and the low lying marshes in the vicinity of the Kilbarry are both refuges for flora and fauna within this largely urban area of the South Eastern River Basin District. The Kings channel is important to cormorant (*Phalacrocorax carbo*) and other seabirds, but it is the small patches of salt marsh which have gained this area NHA status. The salt marsh is best developed around Grantstown. It provides a habitat for a sequence of salt marsh communities including clumps of the rare and protected Meadow Barley (*Hordeum brachyanterum*). The area around Little Island is also a candidate Special Area of Conservation.

Waterford

The upland areas of the Comeragh and Monavullagh Mountains provide a diverse range of habitats, including blanket bog, heath, upland grassland, scree, exposed rock, lakes and streams. The blanket bog represents the south-eastern extremity of its range in Ireland. There are many corries, most of which have associated oligotrophic lakes, including Coumshingaun Lough, an ultra-oligotrophic lake. There is diverse array of flora associated with upland peat bogs, heather's, and mountain cliffs. The Comeragh Mountains supports breeding Peregrine (*Falco peregrinus*) and Hen Harrier (*Circus cyaneus*), both species listed on Annex I of the EU Birds Directive. Also breeding here is the Raven (*Corvus corax*) as is Irish Hare (*Lepus timidus hibernicus*), a Red Data Book species.

Areas of transitional waters that are of importance for conservation included intertidal sand and mudflats of Suir Estuary and Tramore Backstrand and the salt marsh and dunes at Tramore are all habitats listed under Annex I of the EU Habitats Directive and areas designated as cSAC's. Important species recorded in these transitional water areas included; Brent Geese (*Branta bernicula*), Golden Plover (*Pluvialis apricaria*), Grey Plover (*Pluvialis squatarola*), Dunlin (*Calidris alpina*), Sanderling (*Calidris alba*), Black-tailed Godwit (*Limosa limosa*) and Bar-tailed Godwit (*Limosa lapponica*). Both the Golden Plover and Bar-tailed Godwit are listed on Annex I of the EU Birds Directive. The intertidal sand and mudflats have a typical macro-invertebrate fauna, characterised by polychaetes and bivalves. Flora of the fixed dunes is not as species-rich as at other systems, nevertheless, most of the characteristic dune species of the south-east are found.

Riverine areas and associated habitats including marshes and grasslands provide habitat for nationally important numbers of overwintering Greylag Geese (*Anser anser*). Other species recorded in significant numbers include Whooper Swan (*Cygnus cygnus*), Teal (*Anas crecca*), Tufted Duck (*Aythya fuligula*), Golden Plover (*Pluvialis apricaria*), Lapwing (*Vanellus vanellus*) and Curlew (*Numenius arquata*).

Wicklow

The Wicklow mountains support a range of rare plant species, which are listed in the Irish Red Data Book: Parsley Fern (*Cryptogramma crispera*), Marsh Clubmoss (*Lycopodiella inundata*), Greater Broom-rape (*Orobancha rapum-genistae*), Alpine Lady's-mantle, Alpine Saw-wort, Lanceolate Spleenwort (*Asplenium billotii*), Small White Orchid (*Pseudorchis albida*) and Bog Orchid

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(*Hammarbya paludosa*). The latter three species are legally protected under the Flora (Protection) Order, 1999.

Tomnafinnoge Wood is of considerable conservation significance also as an example of an Oak woodland type that is listed on Annex I of the EU Habitats Directive. Apart from this, its importance lies in the size of the trees, their capacity to regenerate and their genetic continuity with ancient woodland.