

Protecting the rare Northern Colletes

The Northern Colletes (*Colletes floralis*) is a ground-nesting solitary bee that is restricted to flower-rich coastal habitats such as sand dunes. It is facing severe decline in Northern Europe, with Ireland currently holding up to 90% of the remaining populations of the bee in the Atlantic zone. Under-grazing, agricultural intensification and development has resulted in reduction and fragmentation of its habitat.

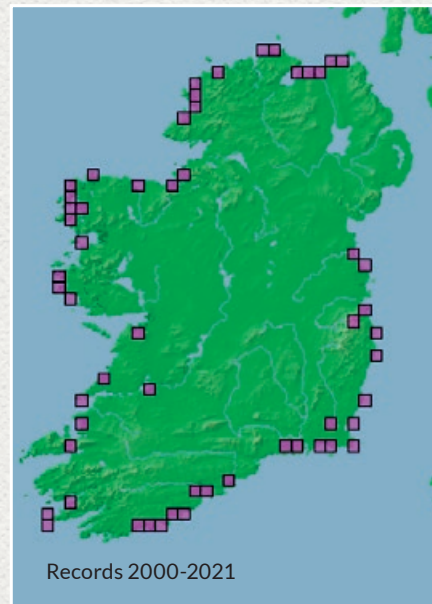
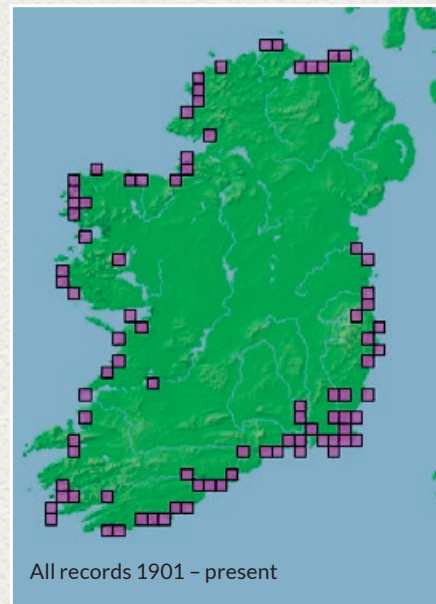
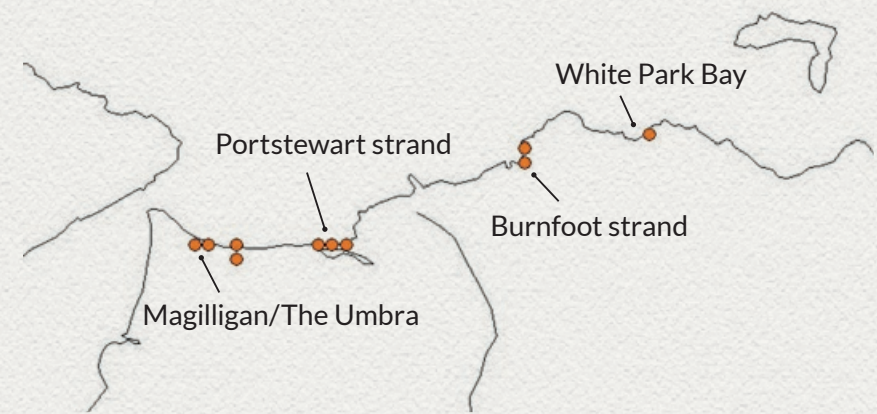
In Ireland, we have 100 different bee species: the honeybee, 21 bumblebees and 78 solitary bee species. In carrying out pollination, bees are helped by other insects, particularly hoverflies and moths. Unfortunately, pollinators are in trouble. One third of Irish bee species are threatened with extinction. The All-Ireland Pollinator Plan is an island-wide initiative to help pollinators by creating a landscape where they can survive and thrive.

The Northern Colletes is listed as Vulnerable in the Irish Regional Red List of Bees and in the European Red List of Bees. It is listed as an NI Priority Species under the Wildlife and Natural Environment Act (Northern Ireland) 2011. In Ireland, it is almost exclusively coastal and found around the entire coast apart from a gap in the northeast between White Park Bay, Co Antrim and Baltray, Co Louth. The species remains relatively widespread, with around 70 populations recorded since 2000.

However, once lost from a site it will be very difficult to naturally return as populations are currently very fragmented. Given the importance of

the Irish populations in a global context, conservation measures need to consider site-specific management, so the species is not lost from sites where healthy populations occur.

Within Northern Ireland, the Northern Colletes has been recorded in four main locations: Magilligan/The Umbra, Portstewart strand, Burnfoot strand and White Park Bay.



Source: <https://maps.biodiversityireland.ie/Species/56212>

What the Northern Colletes needs:

Suitable nest sites

Suitable nest sites for the Northern Colletes are bare patches of firm sandy soil, or south-facing slopes and banks where the vegetation is short and sparse. Typically, these are areas of firm sand structured with vegetation such as thyme, moss or grasses.

A supply of pollen and nectar throughout the season

The Northern Colletes is polylectic, which means it gathers pollen from a wide variety of plants within areas of flower-rich grassland adjacent to their nesting sites. The most important forage species are Wild Carrot and Wild Angelica.



An Roinn Cultúir,
Oidhreacht agus Gaeltachta
Department of Culture,
Heritage and the Gaelacht



Identifying the Northern Colletes

Medium-sized solitary bee. Look for fox-coloured hairs on the thorax, and a black abdomen with distinctive white bands.



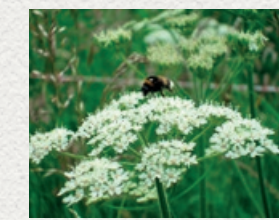
Native food plants



Wild Carrot ★



Wild Angelica ★



Hogweed



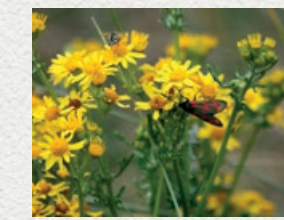
Cat's-Ear



Lady's Bedstraw



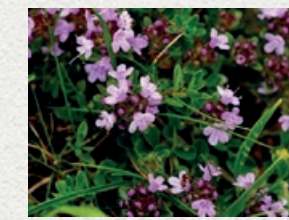
Hawkbits



Common Ragwort



Yarrow



Wild Thyme



Buttercups

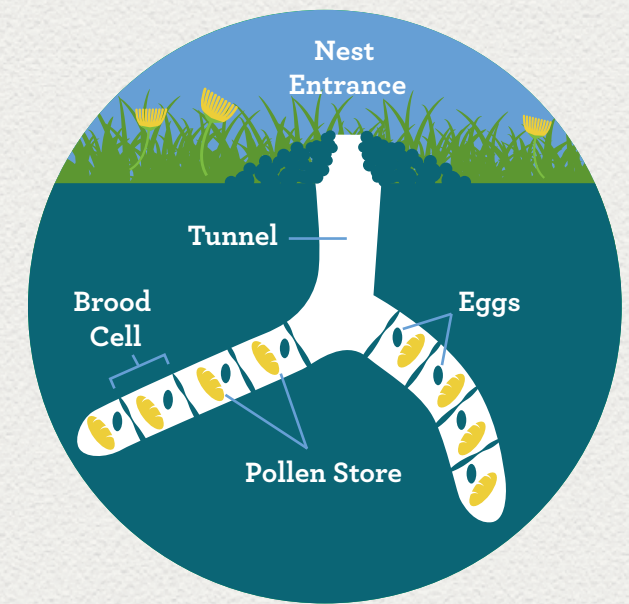
★ Most important forage plants based on experiences in Ireland

Ecology & lifecycle of the Northern Colletes?

The Northern Colletes is a solitary bee. This means it does not form colonies with a queen and workers. Each female excavates her own nest by making a small burrow into stable sand. A secretion from glands in their mouths is used to coat the inside of the burrow before the eggs are laid in sealed cells. The burrow is then closed with consolidated sand. Within each cell, the female lays a fertilised egg and leaves a food reserve comprised of regurgitated nectar and pollen. The larvae feed on the provisioned food before pupating and spending the winter hibernating as dormant adults.

Adults normally emerge from mid-June onwards and remain active until late August. Mating occurs from mid-June through July after which the males die. Pollen is gathered from a wide variety of plants. Studies within Ireland have shown that the bee has a strong preference for flowers of umbellifers (Apiaceae family).

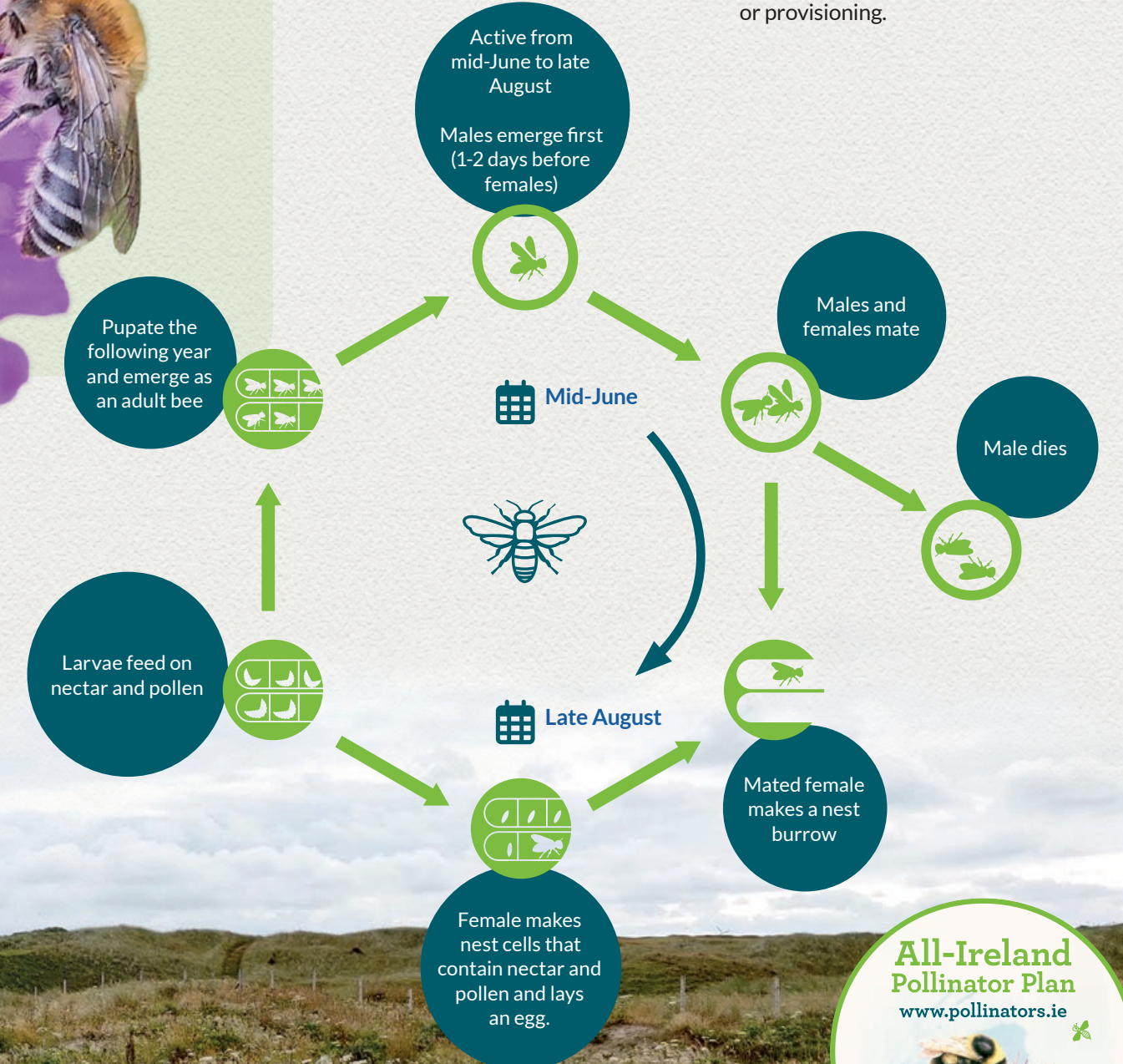
The Northern Colletes nests in aggregations where suitable nesting substrate is found. This can appear like a large colony, but each nest is separate, and the bees do not help each other in nest building or provisioning.



Find out more

To find out more about the All-Ireland Pollinator Plan, and to download our Guideline document 'Protecting rare pollinators: Northern Colletes', see

www.pollinators.ie/helping-endangered-pollinators/



Portstewart Strand

