

**COMMON ELEMENTS IN THE FAUNA AND FLORA OF
TASMANIA AND THE UK**

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“I’m standing on a bank watching the sun go down behind the reedbed bordering the river. ‘Common reed’ doesn’t do justice to the beauty of this plant when seen *en masse* in the evening sunlight, its feathery seedheads nodding in the chill autumn breeze. It really sums up this place. High above, a peregrine falcon chases a flock of feral pigeons out over the fields. And then a swamp harrier appears, quartering low over the reedbed before dropping down to roost. This is a really special experience for me, my first swamp harrier and in the magnificent setting of the Norfolk countryside. It’s October and soon, I know, the harrier will be heading south for the winter. I’m glad I saw it before it left.”

Tasmania abounds with wild places and special wildlife experiences such as this. Except the observant reader will have noticed that I said Norfolk, not New Norfolk; I described October as autumn, and mentioned that the harrier would be migrating south for the winter, not north. My account relates to three species that are rightly thought of as typically Tasmanian, yet are also typically English. They represent a small sample of a much larger phenomenon that has fascinated me since moving from England to Tasmania: the two regions, though on opposite sides of the world, share a surprising number of native species in common.

Of course, despite its similarities, Tasmanian nature was seen as far too, well, *foreign* to be able to nourish the souls of the early Europeans, who pined for some more familiar reminders of the old country. The acclimatisation societies around Australia did much to shape the view that Australian nature was inferior and needed supplementing with European stock. Nowhere was this easier than in Tasmania, where a host of familiar European species from oak trees, holly and ivy to blackbirds, sparrows and starlings have readily ‘acclimatised’, some beyond the wildest dreams of the acclimatisers. A century or more later, a backlash now sees this acclimatisation as a threat to local nature. One of my points in writing this article is to remind the reader that there are species that naturally

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occur in both regions and deserve our respect for being able to have colonised these global extremities without the hand of humans.

Perhaps the environment where species sharing is most apparent is in the oceans surrounding the islands of Tasmania and Britain. For species able to swim, or to drift on the currents, there are far fewer obstacles to global dispersal than there are for land-dwelling species. Species tolerant of a wide range of temperatures and/or salinities are almost born to disperse around the globe. Strong swimmers, such as dolphins and whales, have the clear advantage here. Bottlenose dolphins *Tursiops truncatus* are equally at home in Hobart's Derwent estuary as they are in the firths of Scotland, where they may encounter some of the same fish species, such as grey mullet *Mugil cephalus* and john dory *Zeus faber*. Orcas (killer whales) *Orcinus orca* keep the dolphins on their guard in both regions.

Four ocean surface drifters are as likely to be found by visitors to Tasmania's east coast as they are on the southwest coast of England or Ireland, as each region lies in the path of warmer waters originating in the tropics. Three of these drifters are jellyfish relatives: the bluebottle or Portuguese man o'war *Physalis physalis*, the by-the-wind sailor *Velella velella*, and the porpita *Porpita porpita*. The first two of these have 'sails' to catch the wind. *Physalia* has a bag of carbon monoxide as a combined float and sail, while *Velella* has a stiff sail. But *Velella* has one advantage: they come in two different orientations, ensuring that sustained winds will drive those whose sails are orientated to the left of the body in one direction, while those whose sails are orientated to the right of the body end up sailing in another direction. What better mechanism could there be for global oceanic colonisation? The only problem for *Velella* is that, wherever they drift, the violet snail *Janthina janthina* (Figure 1) drifts too. It exudes a bubble raft and sails the oceans in the hope of bumping into one of these jellies, on which it feeds. Like the jellies, it occurs in eastern Tasmania, southwest England and most of the warm oceans in between.

Being able to drift or swim with the ocean currents also explains why three 'true' jellyfish, the moon jelly *Aurelia aurita*, the lion's mane jelly *Cyanea capillata* and the phosphorescent jelly *Pelagia noctiluca* are also found in both regions. They are joined by the ramshorn snail *Spirula spirula*, a squid relative whose shells are occasionally washed up in eastern Tasmania and in southwestern England, and the goose-barnacle *Lepas pectinata*, which hitches a ride on driftwood and is similarly well distributed. And just occasionally, trawlermen in both regions may net a leatherback turtle *Dermochelys coriacea*, the most cold-tolerant of the marine turtles but one common to both hemispheres. This is one species that sometimes falls victim to great white sharks (white pointers) *Carcharodon carcharias*. Tourism operators would have us believe that great whites

are as unlikely to be encountered in Tasmania or Britain as in the cool waters of the northeast US (where the film *Jaws* was set), but there are regular sightings from the east coast of Tasmania and one recent sighting from southwest England.

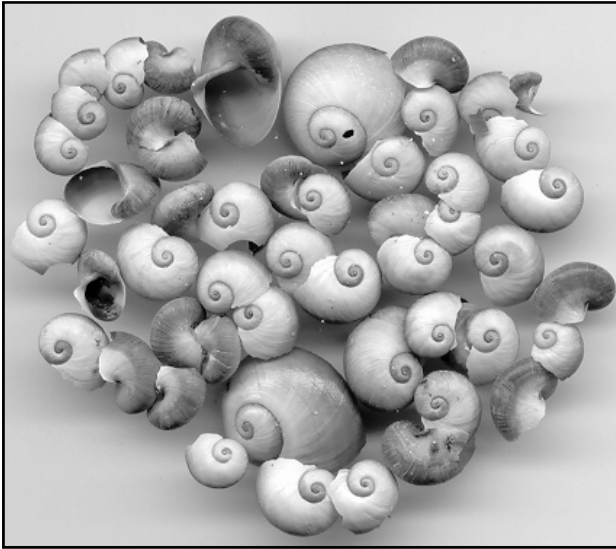


Figure 1. A collection of violet snails *Janthina janthina* collected by the author from Safety Cove, Tasman Peninsula, in summer 2002 following a spell of strong easterlies. The same species may be washed up on favoured British beaches following sustained southwesterlies.

But you don't have to spend your entire life swimming or drifting to conquer the world's extremities. Many invertebrates are sedentary as adults, but start life as planktonic larvae, and therefore have many of the same opportunities for travel as do the dedicated drifters. Thus it is that the common heart urchin of Tasmanian sandy beaches, *Echinocardium cordatum*, is the same common 'sea potato' found around Scotland and Ireland. One of my most prized Tasmanian seashells is a red rock whelk *Charonia lampas*, found on a Tasmanian Field Naturalists' trip to the Forestier peninsula earlier this year. It's not just that it's an uncommon shell in Tasmania, but more that it's a species I longed, as a child, to find in England, having read of its occasional occurrence there (it's commoner in the Mediterranean). Taxonomists have also now decided that the common blue mussel of Tasmanian rocky shores is the same species, *Mytilus edulis*, that is found along much of the coastline of Europe. Even the green intestine weed *Enteromorpha intestinalis* that carpets nutrient-enriched shorelines, and the velvet weed *Codium fragile* of slightly 'nicer' coastal reefs, has a foothold in both regions. Sadly Britain cannot claim the giant kelp *Macrocystis pyrifera*, but this species, a Tasmanian icon, is actually found around the Pacific, including New Zealand, Chile and California. While I'm on the subject of seaweed, the seaweed fly *Coelopa frigida* is another transglobal citizen, its larvae equally at

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home munching through beachcast decaying giant kelp in southern Tasmania and in equivalent European settings.

Before I leave the oceans for the land, I should mention the shorebirds and waders that migrate from their northern tundra breeding grounds to spend the southern summer on Tasmania's beaches. Ruddy turnstone *Arenaria interpres*, bar-tailed godwit *Limosa lapponica* and whimbrel *Numenius phaeopus* are three such species whose more western populations are regular migrants in Britain, some of them on their way to or from summering in southern Africa. They are followed from their breeding grounds by Arctic skuas (jaegers) *Stercorarius parasiticus*, some of which pass through Britain on their way to the Southern Ocean, including offshore Tasmania. Meanwhile, the little tern *Sterna albifrons* migrates shorter distances but has somehow attained a presence as a breeding coastal bird in both regions. A few birds make the transequatorial journey in the opposite direction. Tasmania's iconic muttonbird or short-tailed shearwater *Puffinus tenuirostris* normally 'winters' in the North Pacific, but occasional sightings have been claimed for British Atlantic waters.

It is not surprising that birds, with their powers of flight, feature prominently in this essay. Species of wetlands seem particularly mobile, perhaps because their habitat is naturally ephemeral. I have already mentioned the swamp harrier *Circus approximans*, known as the marsh harrier in Britain. Tasmanian wetlands also share great crested grebe *Podiceps cristatus*, Eurasian coot *Fulica atra*, great cormorant *Phalacrocorax carbo* and little egret *Egretta garzetta* with those of Britain (and with many of the wetlands in between). The little egret is a recent colonist of England from further south; next on the list may be the black-winged stilt *Himantopus himantopus*, a species which has bred in England on more than one occasion and one that occasionally turns up in Tasmania too. One of the characteristic plants of wetlands in both regions is the common reed *Phragmites australis*. In British texts it used to be called *P. communis*, but somehow it seems it was described first from somewhere more southern in its near-global range, perhaps the great Southern continent, and its name now reflects this.

And so to the truly terrestrial species. There are fewer of these, at least on my list, probably because having a lifestyle adapted for dispersal between land-masses is a risky strategy. I should start with the species whose name says it all – the wanderer butterfly *Danaus plexippus*, known as the monarch in North America and the milkweed butterfly in the UK. This species is perhaps only truly native of the Americas, but with a little help from humans it has crossed the Pacific and occasionally turns up in Tasmania. It seems to have crossed the Atlantic unaided, and now breeds in Spain (on non-native milkweeds). Most years some are spotted by birdwatchers in southern England, usually following intense

autumn storms from the west. Another butterfly migrant from warmer climes, rare but increasingly sighted in both Tasmania and the UK, is the long-tailed (or pea) blue *Lampides boeticus* (Figure 2). In both regions it is attracted, like the wanderer, by non-native foodplants that have been introduced by humans. Strangely, in Tasmania it is associated with European broom (a species native to the UK), while in the UK it apparently prefers tree lupins. The convolvulus hawk-moth *Agrius convolvuli* is a nocturnal counterpart to these butterflies, since its global distribution has been extended polewards through human activities and now includes both the UK and Tasmania.

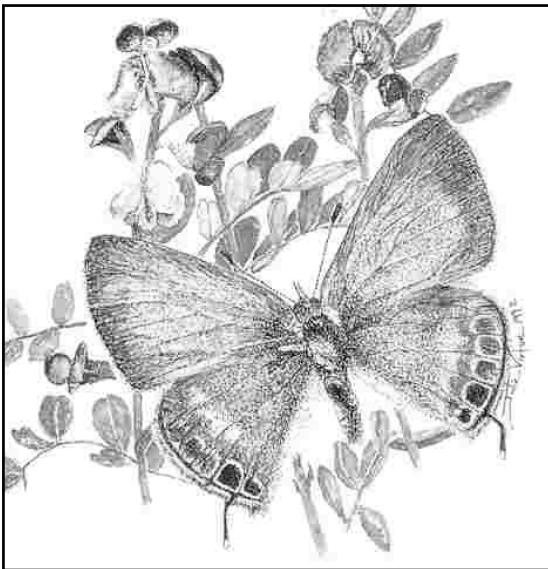


Figure 2. Julie Virtue's painting of the pea (long-tailed) blue *Lampides boeticus*, a migrant with a range encompassing Tasmania as well as the UK.. Reprinted with the artist's permission.

There is a surprising number of plants common to both regions. When I first arrived in Taroona, I was dismayed to see the grassland in the local park overrun with what I took to be an exotic weed, self-heal *Prunella vulgaris*. Only subsequently did I find out that it was native here as well as in the UK. Its presence in Australia troubled the early European botanists too: how it attained this disjunct distribution is anyone's guess. Couch-grass *Cynodon dactylon* is another weed lookalike, strangely native in both regions. It's easier to understand how sow-thistle *Sonchus oleraceus* could end up in both places: its seeds each bear a feathery pappus that it's possible to imagine facilitating transoceanic transport on the wind. But I still resent having to weed it out of flower-beds in Taroona, just like I had to do in the UK. Rather than relying on transoceanic winds, the sea-purslane *Portulaca oleracea* must benefit from oceanic currents instead to allow

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for its disjunct distribution along seashores in both regions.

Spore-producing plants, not surprisingly, are sometimes able to disperse far and wide and there are many species in common between the UK and Tasmania. Fern examples include adder's tongue *Ophioglossum lusitanicum* (the specific name reflecting its southwesterly centre of distribution in Europe), moonwort *Botrychium lunaria*, and maidenhair spleenwort *Asplenium trichomanes*. Mosses are renowned for their wide-ranging spores, and the wetter forests of the UK and Tasmania share *Polytrichum juniperinum* and *Hypnum cupressiforme*, amongst others. As proficient spore-producers, fungi must outclass most organisms, and many species apparently have wide distributions. I say apparently because our understanding of what constitutes a fungal species is still developing, and cryptic species probably abound. It is telling, though, that one of the main identification texts used by our Tasmanian fungal experts Genevieve Gates and David Ratkowsky is a work on the fungi of Switzerland. The lawyer's wig or shaggy ink cap *Coprinus comatus* is just one familiar species whose fruiting bodies decorate autumnal lawns in Tasmania and the UK.

I could go on with further examples, but I think I have made my point. Despite the undoubted uniqueness of much of Tasmania's nature, there are some species that buck the trend. As a relatively recent arrival to Tasmania, having seen or heard of these species elsewhere in the world, they really stand out in the crowd. It's comforting to see familiar things alongside the new, and they provide a foundation on which to build new knowledge, new understanding. But perhaps the biggest lesson for me is how special a place Tasmania is because, give or take a few score prominent widespread species, much of Tasmania's nature really is unique.