

Peregrines and climbers (February 99) by Vic Hurley

Victoria is the stronghold for Peregrines in mainland Australia. Volunteers from the Peregrine Project and many other people have located approximately 225 nest sites in Victoria: on sea-cliffs and even cliffs at the snow-line in the Alps, in quarries and on city buildings. Across the plains in the NW, in Gippsland and in central Victoria, where cliffs are in short supply, but food – galahs and cockatoos – is abundant, the falcons use tree hollows and stick nests of other birds (mostly Wedge-tailed Eagles).

When faced with changes to the environment, some species decline and others thrive. The deciding factor is often a particular characteristic of behaviour or physiology that becomes a liability in the changed circumstances. Like all falcons, Peregrines do not build their own nests and have large territorial areas. This has become a liability as the numbers of suitable nest-sites have been reduced by human activity. Officially, the Peregrine's status in Victoria is vulnerable which is the conservation level just below endangered.

The nest problem

After being taken to the brink by poachers and the problem of DDT-weakened eggshells which broke before hatching, the Peregrine population is recovering. But, recovery is slow in part because of the way that they nest.

Peregrines might be great fliers but they are not much good at nests – in fact, like all falcons they can't build their own. On a cliff, a pair of Peregrines will dig a shallow scrape, just as a seabird does, and lay their eggs on a ledge or in a cave and rely on the conical shape of their eggs to stop them rolling off into the void. A pair will return to the same spot year after year, even if it is not a great residence – one pair has laid eggs for several seasons on a ledge which floods in heavy rain leaving the eggs floating and dead!

But, unlike seabirds that nest in colonies of thousands of birds, a Peregrine pair will take up a 2 sq. km territory and no other pair will be allowed to nest there. For example, it's unlikely that more than one pair would nest at Arapiles.

This low density of breeding pairs is another limiting factor in the slow recovery of the Peregrine population. When a nest-site is deserted after disturbance, or when breeding birds die, it can take many years for another pair to move in.

As climbers, we see guano stains on just about every biggish cliff that we visit, so we could be forgiven for thinking that there are plenty of falcons around. But, to use an old phrase, falcons don't usually shit in their own nests. The guano stains are roosts from which falcons might guard their nest, keep an eye out for prey, or just mark a spot where a young bird rests while trying to establish its own territory – there are many more roosts than actual nest-sites. However, a concentration of whitewash signifies the presence of a falcon territory.

Keeping your distance

All raptors (birds of prey) are sensitive to disturbances at or near the nest. Clearly, they need to be vigilant against other Peregrines wishing to take over the nest territory for their own and, of course, potential predators. This vigilance does not distinguish between an innocent bushwalker enjoying scenic views from a cliff top and a goanna intent on a breakfast of Peregrine eggs or chicks!

There are two levels of disturbance for any nesting raptor which are relevant to climbers. First, the agitation distance: the point at which the nesting raptor sees a potential predator. Second, the flushing distance: the point at which the bird on guard or the incubating bird leave their perch to chase off the intruder. A person within the agitation distance will raise the heart and breathing rate and focus all of the bird's attention on the disturbance until it is removed. This disturbance may limit the amount of time adult birds spend hunting and, if prolonged, may limit the food supply to the fast-growing chicks in the nest. This subtle disturbance can be just as lethal as if the eggs had been chilled below living temperatures.

These distances depend on the individual bird. For climbers making an average amount of noise, the agitation distance might be 50 – 100 metres. Peregrines are more sensitive to disturbance from above the nest, so people walking along the base of the cliff are less of a problem than climbers on the cliff.

Critical time is Spring

The time when Peregrines are most vulnerable is from late August to the end of November. Egg incubation takes approximately 32 days. About five weeks after hatching, the young leave the nest and learn to fly.

This is the time when birds will be most aggressive screaming and swooping on people who come near. Remember they will hit and do pack quite a punch! Different individuals will have different tolerances depending on how much disturbance they have been subjected to. But, all will make it very clear when you are too close! Experience has shown that the more human activity, within the agitation or flushing distance, the more aggressive the adults become.

On a cold day, it can take only 15 minutes off the nest for eggs to die. If the falcons have been sitting for more than 3 or 4 days, they are unlikely to lay again for that year.

After hatching, the chicks eat a lot: females grow from 40 grams at hatching to 1.2 kg within five weeks! The father does most of the hunting, bringing in up to 8 times his body weight to the nest per day. This urgent job leaves little time to deal with intrusive climbers rattling hexes around the nest territory.

The chicks can be in trouble even in the time it takes to climb a single pitch.

Evidence from around the world suggests that, even when the young have hatched and are quite large, disruption to their voracious feeding schedule can cause problems. Birds disturbed during their rapid growth phase have been found to have stress lines in growing flight feathers. These stress lines are bands of weakness in the feathers which can later break when placed under the stress required in high speed dives: birds with these injuries can't hunt and often starve. Australian Peregrines are the heaviest in the world for the size of their wings. This means that their wing loading is already at a maximum without weakened feather shafts.

Later, when the young can fly, you can see them learning the twisting and diving they will use on the hunt. A Peregrine feeds mainly on other birds, often killing them on the wing. In their famous dives, Peregrines become the fastest living thing, reaching 300kph before hitting their prey with outstretched talons.

More natural threats come from ravens, goannas, pythons and sea-eagles which all pirate eggs and chicks. Where they can reach, feral cats, foxes and goats can kill young and destroy eggs. Introduced bees and wasps can also invade nest caves.

About 50% of chicks die during the first year, with less than 10% going on to breed.

What you should do

In Spring, talk to other climbers or have a close look before you choose your climb. At Arapiles, there are usually notices that tell you where the falcons are nesting.

Stay at least 50m away from a nest – more if the falcons are particularly agitated – you'll know if they are upset!

Description

There are two falcons that you often see on Victorian cliffs. Peregrines are the larger ones with slate grey backs, a distinctive black face-mask and a bright white 'bib' on their chests. The smaller ones, with rich red-brown backs and white undersides, are Kestrels. Kestrels are more common but are also sensitive to disturbance at the nest. Keep away from all nesting birds!

The Peregrine Project

03 5022 3060W

VG.Hurley@nre.vic.gov.au