



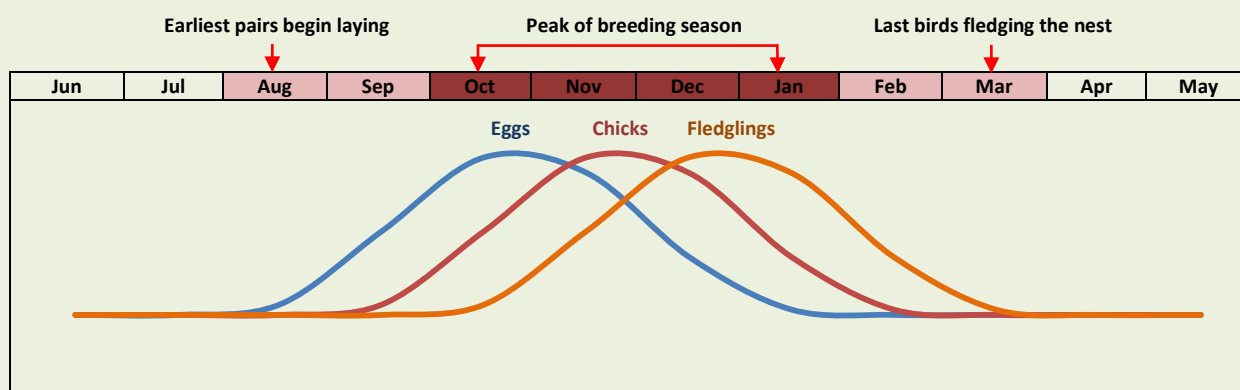
New Zealand Falcon Management Guide Plantation Forestry

BEST-PRACTICE FORESTRY GUIDELINES

The New Zealand falcon, Karearea, is a threatened species that is only found in New Zealand. Widespread habitat-loss has been a major factor in the decline of falcon populations, yet this species appears to be thriving in some plantation forests. The discovery of falcons breeding in pine plantations has significant implications for the conservation of this spectacular species. Plantation foresters that manage their estates to benefit biodiversity, especially threatened species like the falcon, stand to gain by meeting FSC certification requirements and by reinforcing their public image as responsible environmental stewards.

The falcons' habit of nesting **on the ground** can on occasion result in forestry operations disturbing or damaging nests. On the rare occasion that forestry operations encounter nesting falcons the following protocols should be followed to avoid any potentially negative effects.

Figure 1. New Zealand falcon breeding season



How do I identify a nesting falcon?

>> Falcon nests are usually located within 200m of the border between a mature stand and a stand less than 4 years old. New Zealand falcons are a magpie-sized bird of prey, with a sharply hooked bill and long sleek wings (see info. sheet '*Recognising Karearea*'). During the breeding season, falcons defend their nests when approached by people or machinery. The distance at which they begin defensive behaviour differs between individual birds but a loud defensive 'kek kek kek' call usually begins within a few hundred metres of a nest. As the threat gets closer to the nest falcons become increasingly aggressive and initiate dive-bombing swoops. Within 50m of a nest dive-bombing escalates to falcons striking the intruder.

Health & Safety

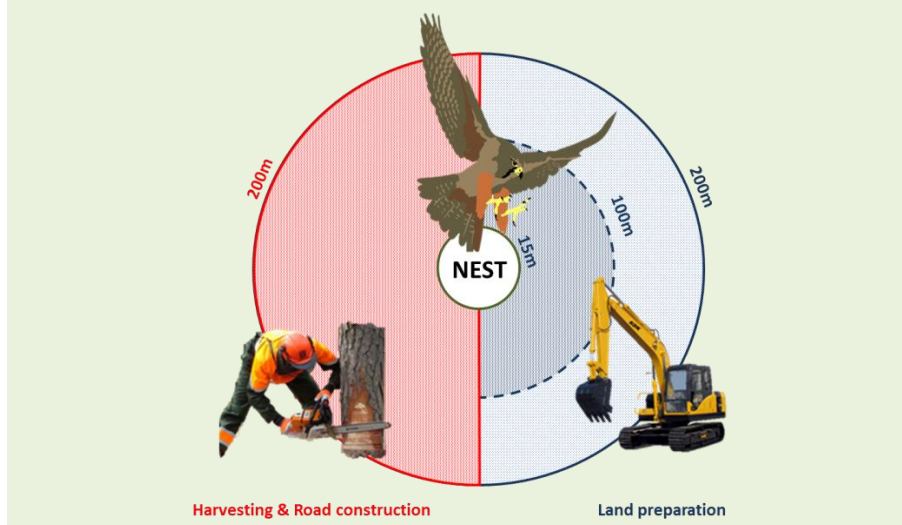
>> If it is necessary to approach a falcon nest, care must be taken to protect the eyes and head. Wearing a hard hat, sunglasses and holding a bushy branch over the head will provide protection from all but the most aggressive individuals. **Please note:** care should be taken not to let falcons strike hard hats repeatedly as they will damage their feet when striking the hard plastic.

Great care must also be taken not to stand on a nest while trying to negotiate pine slash and avoid dive-bombing falcons!

How to avoid negative impacts to falcons >> Negative impacts to falcon breeding can occur when mechanical operations such as tree harvesting, road construction (including skid sites), or land preparation (e.g. wind rowing) occur near an active falcon nest. This is especially the case during the time that falcons are incubating eggs or brooding young that are less than two weeks old.

To avoid impacting falcon breeding success we recommend that all mechanical operations are excluded from within 200m (line of sight) of a falcon nest for the whole time that the eggs and chicks are in the nest (approx. 75 days).

Figure 2. Recommended setbacks of harvesting, road construction (200m) and land preparation operations (variable dependant on nest stage) from active falcon nests



Where land preparation operations are near to a falcon nest, but operational constraints make 200m unworkable, we suggest reducing the setback to 100m. It should be noted however, that reducing the setback increases the risk of falcon nests being disturbed and failing as a result. If further constraints are apparent, land preparation operations may continue even closer than 100m, but **only if chicks are more than two weeks old*** and no machines are to enter or disturb slash within 15m of the nest. Again, it should be noted that this significantly increases the risk of the nest being disturbed and it failing as a result.

Although it is clear that falcon nests can be disturbed by harvesting and road construction activities, there is limited information available on appropriate setback distances. Consequently, it is important to give greater consideration to achieving the 200m setback from harvesting and road construction activities. Where 200m is not practicable it is suggested that setbacks be reduced to no less than 100m, but include monitoring (and reporting to Wingspan) of nest success. Because reducing the setback distance will likely increase the risk of impacting falcon nest success the decision to do so must be made by the Environmental Manager.

*Hint: A two week old chick is downy grey rather than white (see info. sheet 'Recognising Karearea')

Summary Guidelines

1. Between August & March be vigilant for breeding falcons especially during the planning phase of harvesting, road construction & land preparation operations
2. All newly discovered nests and falcon sightings are to be reported to the Environment manager for advice on how to proceed
3. Physically mark the location of the nest (e.g. with flagging tape) so that operators know the area to avoid
4. If the nest cannot be located then setbacks should be measured from the location of any dive-bombing behaviour
5. Delay working in the area of the nest until the end of the operation in that area
6. Where possible all mechanical operations should avoid the area within 200m of the nest (line of sight) until all the chicks have fledged the nest
7. Where operational constraints make a 200m buffer unworkable land preparation operations can be reduced to 100m
8. Land preparation operations may continue further (up to 15m from a falcon nest) but only once chicks are two weeks old*
9. Where possible setbacks around harvesting and road construction should not be reduced below 200m
10. Where operational constraints make a 200m buffer unworkable, harvesting and road construction can be reduced to 100m at the discretion of the Environmental Manager.

For further information on New Zealand falcon please visit www.wingspan.co.nz