

## Artificial hollows for Carnaby's cockatoo



## When to use artificial hollows for Carnaby's cockatoo

Artificial hollows can be used to help conserve the threatened Carnaby's cockatoo. They can enable the cockatoos to breed in areas where natural hollows are limited. For example, artificial hollows may be useful at sites where existing hollows are degrading and not being replaced quickly enough due to lack of tree regeneration. However, the cockatoos don't always use artificial hollows when provided. There are ways to select sites for artificial hollows that will increase the chance that they will be used by the cockatoos.

This information sheet provides advice on selecting sites together with suggested conservation actions for sites where artificial hollows are not suitable. The alternative conservation actions suggested are important to the conservation of the cockatoos and can also be used to complement the placement of artificial hollows.

It is important to remember that the retention of both old and dead trees that have suitable hollows for Carnaby's cockatoo is critical to breeding and hence the long-term survival of the species. The installation of artificial hollows should not be used to justify the removal of natural hollow-bearing trees.



Carnaby's cockatoo nestlings in an artificial hollow  
*Photo by Rick Dawson*

### **Where do Carnaby's cockatoos nest?**

Carnaby's cockatoos nest in the hollows of mature trees in uncleared or remnant areas of eucalypt woodland or forest, particularly wandoo in the wheatbelt, marri in forested areas and in tuart along the Swan Coastal Plain. Trees may take more than 120 years to develop hollows that are a suitable size. The cockatoos use hollows in both living and dead trees.

### **Is my site suitable for artificial hollows?**

It is recommended that artificial hollows be used in known nesting areas where there has been a decrease in the availability of natural nesting hollows. Trials have shown that Carnaby's cockatoos will nest in artificial hollows if installed in suitable areas and are of a satisfactory design. However, putting up artificial hollows may not be the best way to help Carnaby's cockatoos in your area. To decide if your site is suitable for artificial hollows you need to consider the essential criteria. Alternative conservation actions are suggested for each criterion that is not met. All of the criteria must be met for a site to be suitable for placement of artificial hollows.

## Essential criteria

Following are the five essential criteria that must be met for a site to be suitable for placement of artificial hollows. Alternative conservation actions are suggested for each criterion that is not met. All of the criteria must be met for a site to be suitable for placement of artificial hollows:

---

### 1. The site is a eucalypt woodland or forest within the known breeding range of the species.

#### Alternative conservation actions

If the site is not within the known breeding range of Carnaby's cockatoo then it is unlikely that they can be encouraged to use artificial nest hollows in these areas. However, Carnaby's cockatoo is a highly mobile species that also requires habitat for feeding and roosting which means that it is important to protect and manage habitat visited by the cockatoos by fencing and carry out other management, such as rabbit control, to retain existing habitat and to encourage regeneration of native vegetation. It is also important to revegetate areas within the breeding and non-breeding areas with preferred food species and to create linkages of vegetation to assist their movement through the landscape.

---

### 2. Breeding by Carnaby's cockatoo is known or suspected at the site. There must also be evidence that a lack of available tree hollows is preventing breeding that would otherwise occur in the area.

#### Alternative conservation actions

If sufficient natural hollows are available in an area then there is no need to install artificial hollows. This overcomes the need for ongoing maintenance of unnecessary artificial hollows.

If breeding is already occurring at the site and there are plenty of available hollows, efforts can be redirected towards caring for existing or future nesting hollows. This may involve repairing old or damaged nesting hollows by covering cracks, removing debris blocking access to hollows or replacing rotted wood in the hollow so that the depth of the nest floor is manageable for the birds. Future hollows can be protected by preventing compaction of ground around trees, fencing and/or rabbit control to encourage regeneration to produce future nesting trees, fire management and the strategic pruning of limbs to prevent limbs breaking and tearing open hollows. Efforts can also be aimed at enhancing the success of existing breeding by revegetating with preferred food and nesting species as well as creating linkages of suitable vegetation between nesting and feeding areas.

If breeding is not occurring at the site despite hollows being available then there may be a range of factors making the site unsuitable for breeding. These factors must be identified and addressed before breeding can resume in the area (if at all possible). Lack of sufficient food could be the cause and this can be addressed by revegetating with preferred food species and increasing connectivity in the landscape.

To compile a list of plant species suitable for revegetation at your site, visit the *Plants for Carnaby's Search Tool* available on the Parks and Wildlife website:

<http://www.dpaw.wa.gov.au/plants-and-animals/threatened-species-and-communities/threatened-animals/208-saving-carnaby-s-cockatoo>

- 
- 3. The artificial hollows can be located in close proximity to adequate feeding areas – within a 12 km radius.** Feeding areas commonly contain proteaceous species such as banksias (including dryandras) and hakeas. A list of food plants can be obtained by querying the *Plants for Carnaby's Search Tool*.

**Alternative conservation actions** If the site is not in close proximity to sufficient feeding areas then the Carnaby's cockatoos will not be able to successfully raise young. Cockatoos require sufficient food in close proximity to nesting areas in order to be able to forage during the day and return to feed nestlings. Existing feeding habitat close (within 12km) to breeding areas can be protected by fencing and/or undertaking rabbit control to encourage regeneration of native vegetation. The amount of feeding habitat in an area can be increased by planting or revegetating with preferred food species.

---

- 4. The hollows are placed in secure locations and the owner/manager of these areas is supportive and willing to provide the necessary long-term security and annual maintenance for the entire time that the artificial hollow will be in place.** For advice on the monitoring and maintenance requirements, please refer to the separate information sheet *How to monitor and maintain artificial hollows for Carnaby's cockatoo*.

**Alternative conservation actions** Artificial hollows are subject to nest robbing and vandalism. It is highly recommended that artificial hollows are not put in exposed or easily accessible areas such as road verges. If the site is considered at high risk of nest robbing or vandalism then alternative actions to assist the conservation of the species are recommended including: revegetation, fencing, repairing old or damaged natural nesting hollows and planting vegetation linkages to connect nesting and feeding areas.

---

- 5. A suitable artificial hollow design is used.** For greatest chance of success, please refer to the separate information sheet *How to design and place artificial hollows for Carnaby's cockatoo*.

**Alternative conservation actions** If an improved or alternative design is proposed, it is recommended that BirdLife Australia, WA Museum or Department of Parks and Wildlife are contacted to discuss plans.

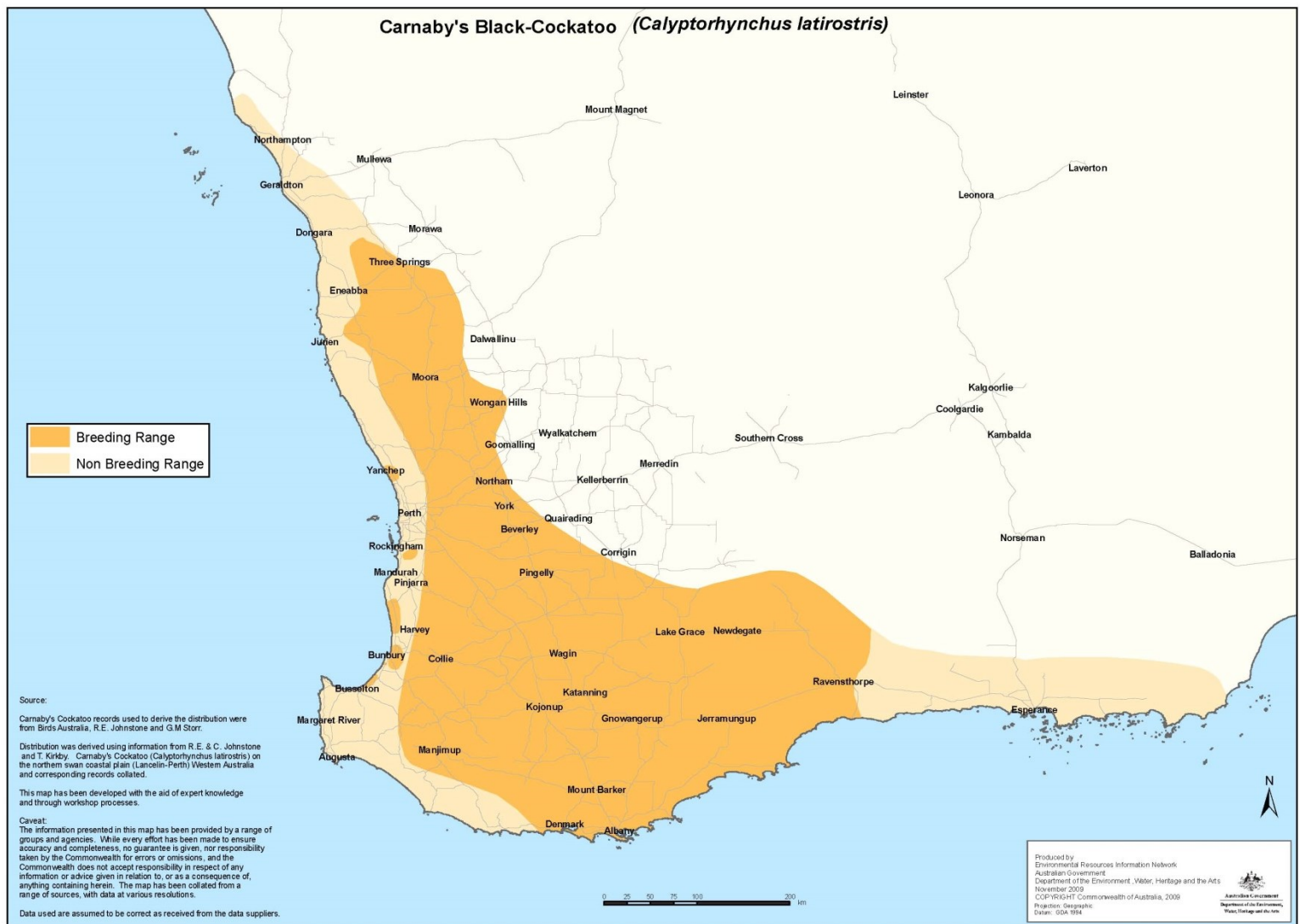
---

### ***In summary***

If your site does not match all the criteria required for the installation of artificial hollows to be effective then you may wish to consider alternative conservation actions including:

- Protecting habitat by fencing and/or rabbit control to encourage regeneration of native vegetation
- Controlling competitive species such as galahs, corellas and feral bees that may occupy hollows
- Repairing old and damaged natural nesting hollows
- Revegetating with preferred food species and nesting trees
- Creating linkages of vegetation between nesting and feeding areas

Breeding range of Carnaby's cockatoo (as at November 2009)



**Acknowledgements**

This information sheet is a joint initiative of Birdlife Australia, the Western Australian Museum and the Department of Parks and Wildlife. Many individuals have contributed to its preparation. The updated version was compiled by Rick Dawson (Department of Parks and Wildlife) with assistance from Denis Saunders.

**Other information sheets in the series: Artificial hollows for Carnaby's cockatoo**

- *How to design and place artificial hollows for Carnaby's cockatoo*
- *How to monitor and maintain artificial hollows for Carnaby's cockatoo*

Information sheets available on the *Saving Carnaby's cockatoo* webpage:

<http://www.dpaw.wa.gov.au/plants-and-animals/threatened-species-and-communities/threatened-animals/208-saving-carnaby-s-cockatoo>

Further information

Last updated 28/04/2015

Contact [fauna@dpaw.wa.gov.au](mailto:fauna@dpaw.wa.gov.au) or your local office of the Department of Parks and Wildlife

See the department's website for the latest information: [www.dpaw.wa.gov.au](http://www.dpaw.wa.gov.au)

*Disclaimer: This publication may be of assistance to you but the Government of Western Australia and its officers do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication*