= Crescent honeyeater =

The crescent honeyeater (Phylidonyris pyrrhopterus) is a passerine bird , of the honeyeater family Meliphagidae , native to south @-@ eastern Australia . A member of the genus Phylidonyris , it is most closely related to the common New Holland honeyeater (P. novaehollandiae) and the white @-@ cheeked honeyeater (P. niger) . Two subspecies are recognized , with P. p. halmaturinus restricted in range to Kangaroo Island and the Mount Lofty Ranges in South Australia .

It is a fairly nondescript bird of dark grey plumage and paler underparts , highlighted by yellow wing patches and a broad , black crescent , outlined in white , down the sides of its breast . The species exhibits slight sexual dimorphism , with the female being duller in colour than the male . Juvenile birds are similar to the female , though the yellow wing patches of male nestlings can be easily distinguished .

The male has a complex and variable song , which is heard throughout the year . It sings from an exposed perch , and during the breeding season performs song flights . The crescent honeyeater is found in areas of dense vegetation including sclerophyll forest and alpine habitats , as well as heathland , and parks and gardens , where its diet is made up of nectar and invertebrates . It forms long @-@ term pairs , and often stays committed to one breeding site for several years . The female builds the nest and does most of the caring for the two to three young , which become independent within 40 days of egg @-@ laying .

The parent birds use a range of anti @-@ predator strategies , but nestlings can be taken by snakes , kookaburras , currawongs , or cats . While the crescent honeyeater faces a number of threats , its population numbers and distribution are sufficient for it to be listed as of Least Concern for conservation .

= = Taxonomy = =

The crescent honeyeater was originally described by ornithologist John Latham in 1801 as Certhia pyrrhoptera , because of an assumed relationship with the treecreepers , Certhia . It was later named Certhia australasiana by George Shaw in 1812 , Melithreptus melanoleucus by Louis Jean Pierre Vieillot in 1817 , and Meliphaga inornata by John Gould in 1838 . The generic term comes from the French phylidonyre , which combines the names for a honeyeater and a sunbird (previously thought to belong to the same family) . The specific epithet is derived from the Ancient Greek stems pyrrhos , meaning " fire " , and pteron , meaning " wing " , in reference to the yellow wing patches . Some guidebooks have the binomial name written as Phylidonyris pyrrhoptera ; however , a review in 2001 ruled that the genus name was masculine , hence pyrrhopterus is the correct specific name . Two subspecies are recognised , the nominate form P. p. pyrrhopterus over most of its range , and P. p. halmaturinus which is restricted to Kangaroo Island and the Mount Lofty Ranges .

A recent molecular study showed its close relatives to be the New Holland honeyeater and the white @-@ cheeked honeyeater , the three forming the now small genus Phylidonyris . DNA analysis has shown honeyeaters to be related to the Pardalotidae (pardalotes) , Acanthizidae (Australian warblers , scrubwrens , thornbills , etc .) , and Maluridae (Australian fairy @-@ wrens) in a large Meliphagoidea superfamily .

Other common names for the crescent honeyeater include chinawing , Egypt and horseshoe honeyeater . Gould called it the Tasmanian honeyeater .

= = Description = =

= = = Appearance = = =

The crescent honeyeater measures 14 ? 17 centimetres (5 @.@ 5 ? 6 @.@ 7 in) , in length , with a wingspan of 16 ? 23 centimetres (6 @.@ 3 ? 9 @.@ 1 in) , and weighs about 16 grams (0 @.@

56 oz) . It is sexually dimorphic , with the female a paler version of the male . The male is dark grey with clear yellow wing @-@ patches with a broad , black crescent , outlined in white , down the sides of its breast , and a white streak above his eye . The top of the tail is black , with yellow edges to the feathers forming distinctive yellow panels on the sides of the tail . White tips on the undertail are usually only visible in flight . The underparts are pale brownish @-@ grey fading to white . The female is duller , olive brown with faded yellow wing patches with similar , though less clear , crescentic markings . Both sexes have dark grey legs and feet , deep ruby eyes and a long , downcurved black bill . The gape is also black . Young birds are similar to the adults , though not as strongly marked , and have dark grey bills , duller brown eyes and yellow gapes . Male nestlings can be distinguished by their more extensive yellow wing patches from 7 days old . Moulting patterns of the species are poorly known ; crescent honeyeaters appear to replace their primary flight feathers between October and January .

While both subspecies have the same general appearance , the female of halmaturinus has paler plumage than the nominate race , and both male and female have a smaller wing and tail and longer bill . The halmaturinus population on Kangaroo Island has a significantly shorter wing and longer bill than the Mount Lofty population , although this size variation of an insular form is at odds with Allen 's and Bergmann 's rules .

= = = Vocalisation = = =

The crescent honeyeater has a range of musical calls and songs . One study recorded chatter alarm calls similar to the New Holland honeyeater , a number of harsh monosyllabic or tri @-@ syllabic contact calls , and complex and diverse songs . The most common contact call is a loud , carrying " e @-@ gypt " , while the alarm call is a sharp and rapid " chip @-@ chip @-@ chip " . The male also has a melodic song which is heard throughout the year , at any time of the day . The structure of the song is complex and diverse , and includes both a descending whistle and a musical two @-@ note call . The male 's song is performed from an exposed perch or within the tree canopy , and it engages in mating displays (song flights) during the breeding season . When the female is on the nest and the male nearby , they utter low soft notes identified as " whisper song " .

= = Distribution and habitat = =

There are records of scattered populations of the crescent honeyeater on the Central Tablelands , the Mid North Coast , and in the Hunter Region of New South Wales , and it is widespread in the areas of New South Wales south of Dharug National Park and east of Bathurst . In Victoria it is widespread across an area from the NSW border south west to Wallan with scattered populations recorded further west . It is widespread in Tasmania , except in the north @-@ east part of the state where it is more sparsely distributed . It is restricted to sclerophyll forest in eastern South Australia , where isolated populations have been recorded in the Mount Lofty Ranges and on Kangaroo Island . Local influxes have occurred outside its normal range in response to changes in habitat . Recorded population densities range from 0 @.@ 3 birds per hectare (0 @.@ 1 per acre) near Orbost , to 8 @.@ 7 pairs per hectare (3 @.@ 4 per acre) in Boola Boola State Forest , also in Victoria .

While the crescent honeyeater occupies a wide variety of habitats including coastal heath , rainforest , wet sclerophyll forest , mountain forest , alpine woodland , damp gullies and thick tea @-@ tree scrub , they all demonstrate its preference for dense vegetation . It has been frequently recorded in wet sclerophyll forest dominated by eucalypts and with a thick mid @-@ story and understory of shrubs such as blackwood , silver wattle , Cassinia , Prostanthera , and Correa . At higher altitudes it occurs in alpine heathlands and in woodlands of stunted eucalypt or conifers .

The movements of the crescent honeyeater within its range are incompletely known . There is widespread evidence of seasonal migration to lower altitudes in cooler months , yet a proportion of the population remains sedentary . Autumn and winter migration to the lowland coastal areas is seen in southern Tasmania , where it is not unusual to see it in urban parks and gardens , as well as Gippsland , and the New South Wales Central and South Coast . In the Sydney region , some birds

appear to move down from the Blue Mountains to Sydney for the cooler months , yet others remain in either location for the whole year . It is only seen in alpine and subalpine areas of the Snowy Mountains in warmer snow @-@ free months (mainly October to April) . Other populations of crescent honeyeaters follow a more nomadic pattern of following food sources ; this has been recorded in the Blue Mountains and parts of Victoria .

= = Behaviour = =

= = = Breeding = = =

Crescent honeyeaters occupy territories during the breeding season of July to March , with pairs often staying on in the territory at the end of the season and committing to one breeding site for several years . Banding studies have recaptured birds within metres of the nest in which they were raised , and one female was re @-@ trapped at the banding place almost ten years later . The pairs nest solitarily , or in loose colonies with nests around 10 metres (33 ft) apart . The male defends the territory , which is used both for foraging and breeding , though during the breeding season he is more active in protecting the area , and therefore much more vocal . During courtship the male performs song flights , soaring with quivering wings and continuously calling with a high piping note .

The female builds the nest close to the boundary of the territory , usually near water , low in the shrubs . It is a deep , cup @-@ shaped , bulky nest of cobweb , bark , grass , twigs , roots and other plant materials , lined with grass , down , moss and fur . The long strips of bark from stringybark or messmate trees are often used . The clutch size is 2 or 3 , occasionally 4 . Measuring 19 millimetres (0 @.@ 75 in) by 15 millimetres (0 @.@ 59 in) , the eggs are pale pink , sometimes buff @-@ tinged , with lavender and chestnut splotches . The base colour is darker at the larger end . The female incubates and broods the eggs , but both sexes feed the nestlings and remove fecal sacs , although the female does the majority of caring for the young . The young birds are fed insects , with flies making up much of the regurgitated material according to one study . The incubation period is 13 days , followed by a fledging period of 13 days . The parent birds feed the fledglings for around two weeks after they leave the nest , but the young do not remain long in the parents ' territory . The young are independent within 40 days of egg @-@ laying .

Parent birds have been observed using a range of anti @-@ predator strategies : the female staying on the nest until almost touched ; one or other of the pair performing distraction displays , fluttering wings and moving across the ground ; the female flying rapidly at the intruder ; and both birds giving harsh scolding calls when a kookaburra , tiger snake or currawong approached . The nests of the crescent honeyeater are usually low in the shrubs , which makes the birds and their young vulnerable to predation by birds and snakes ; however , domestic and feral cats are the most likely predators to hunt this species .

Crescent honeyeaters pair in long @-@ term relationships that often last for the whole year ; however , while they are socially monogamous they appear to be sexually promiscuous . One study found that only 42 % of the nestlings were sired by the male partner at the nest despite paternity guards such as pairing and territorial defence . The crescent honeyeaters observed exhibited a number of characteristics consistent with genetic promiscuity : sexual dimorphism , with sex @-@ specific plumages identifiable at nestling stage ; reduced male contribution to feeding and caring for the young ; vigorous defence of the territory by the male ; and frequent intrusions into other territories by females which were tolerated by the males holding those territories .

= = = Feeding = = =

The crescent honeyeater is arboreal , foraging mainly among the foliage and flowers in the understory and tree canopy on nectar , fruits and small insects . It has been recorded eating the honeydew of psyllids , soft scale and felt scale insects . It feeds primarily by probing flowers for

nectar , and gleaning foliage and bark and sallying for insects . While regularly observed feeding singly or in pairs , the crescent honeyeater has also been recorded moving in loose feeding flocks , and gathering in large groups at productive food sources . A study in forest near Hobart in Tasmania found that the crescent honeyeater 's diet was wholly composed of insects during the breeding season , but nectar was a significant component during winter . Insects consumed include moths and flies , and the tree trunks were the site of foraging around two thirds of the time , and foliage a third . It fed on nectar as plants came into flower in the autumn and winter , and then foraged in Tasmanian blue gum (Eucalyptus globulus) during the breeding season in spring . The flowering of royal grevillea (Grevillea victoriae) over summer in subalpine areas in the Snowy Mountains attracted large numbers of crescent honeyeaters . It feeds intensively when sources are plentiful and when feeding on flame heath (Astroloma conostephioides) it was recorded visiting an average of 34 flowers per minute . Other plants it has been recorded visiting include a number of Banksia species , waratah (Telopea) , tubular flowered genera including Astroloma , Epacris and Correa , mistletoes of the genus Amyema , and eucalypts in the Mount Lofty Ranges in South Australia . In Bondi State Forest it was also recorded feeding at cluster @-@ flower geebung (Persoonia confertiflora) , native holly (Lomatia ilicifolia) , tall shaggy @-@ pea (Oxylobium arborescens) , silver wattle (Acacia dealbata) and blackthorn (Bursaria spinosa) . Local differences in flower foraging patterns have been observed in South Australia ; populations on Kangaroo Island forage more often at Adenanthos flowers than those in the nearby Fleurieu Peninsula , while the latter forage more often at eucalypt blooms , and at a higher diversity of plants overall .

= = Conservation status = =

While the population numbers and distribution are sufficient for the crescent honeyeater to be listed as of Least Concern for conservation , numbers have fluctuated significantly over the past twenty @-@ five years and currently seem to be in decline . The threats to the crescent honeyeater include habitat destruction , as the alpine forests in which it breeds are being reduced by weed infestations , severe bush fires , drought and land clearing . The crescent honeyeater 's dependence on long @-@ term partnerships and breeding territories means that breeding success is threatened by the death of one partner or the destruction of habitual territory . The influx of birds to urban areas also places them at increased risk of accidents and predation . Cats have been recorded preying on crescent honeyeaters , and at least one guide urges cat owners to keep their cats in enclosures when outside the house or to provide a stimulating indoor environment for them .