

Ectrosia nervilemma (B.K. Simon) Night.

(Ek-trow-see-ya nerve-e-lem-a)

This species is found throughout Cape York Peninsula (CYP), north of Cairns. Notably there are no collections from the south western region of the peninsula, from Staaten River National Park to Karumba. Considered an ephemeral, it is short-lived and present only when conditions are favourable and may be not collected in that region because of lack of access during the wet season. It stands between 12-40 cm tall when flowering, with narrow leaves arising from the base and along the stems (Fig. 1). The basic flowering units or spikelets are arranged singly along a central stem or along branches arising from a central stem (Fig. 2). The spikelets arise from the flowering stem well above the leaves, are well spaced from each other and often held at right angles to the stem or drooping. Each spikelet contains 2-8 florets (modified grass flowers) which overlap in a herringbone pattern (Fig. 3), the spikelets are laterally compressed, i.e. flattened along their sides. The lemma, the dominant visible structure of the floret (Fig. 3), has distinct green and white stripes when fresh and is often purple tinged. The lemma tapers into a distinct awn/bristle giving the tip of the spikelet a spiky appearance. Compared to many other common species of *Ectrosia* this species has quite short wide spikelets, the ratio of the spikelet length (excluding the awns) to the spikelet width is 3 or less (Fig.), compared to greater than 3 in species like *Ectrosia leporina* (Fig. 4) (Nightingale et al. 2005). Also note that when looking at the broadest face of the spikelet the sides of the spikelets are relatively straight, in other species with short wide spikelets the sides of the spikelets become quite recurved or bent backwards or outwards.



Fig. 1. Image of whole plant of *Ectrosia nervilemma*. PHOTO: RJCumming

> BOTANICAL DESCRIPTION

Flowering culms 12-40 cm high, stature slender to delicate, erect to drooping. Leaf blades 1-4 mm wide and hairy. Inflorescence an open panicle, 6-17 cm long, 1.5-3 cm wide, spikelets widely spaced along the branches and central stem. Spikelets of 2-8 overlapping florets, 5-11 mm long, 3-6.5 mm wide. Glumes paired at based of spikelet, lower glume 2.5-4 mm long, upper glume 3-4.5 mm long (Fig. 3). Basal lemmas 3-6.5 mm long, with tapered to sharp point or awned (Fig. 3), lemma awns longer on upper florets.



Fig. 2. Image of inflorescences of *Ectrosia nervilemma* and *Ectrosia leporina*. Showing sparsely arranged spikelets in *Ectrosia nervilemma* and congested spikelets in *E. leporina*. PHOTO: RJ Cumming

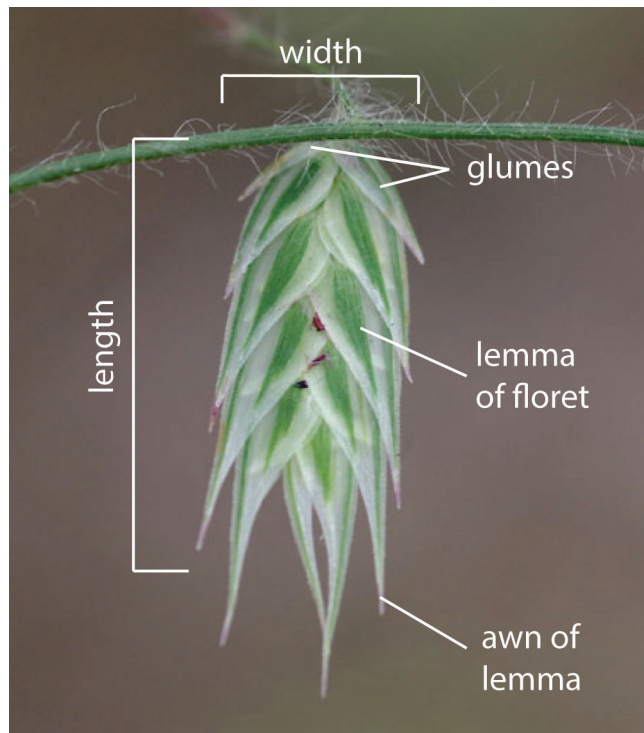


Fig 3. Image of spikelet of *Ectrosia nervilemma* showing shape of spikelet and arrangement of florets. PHOTO: RJCumming

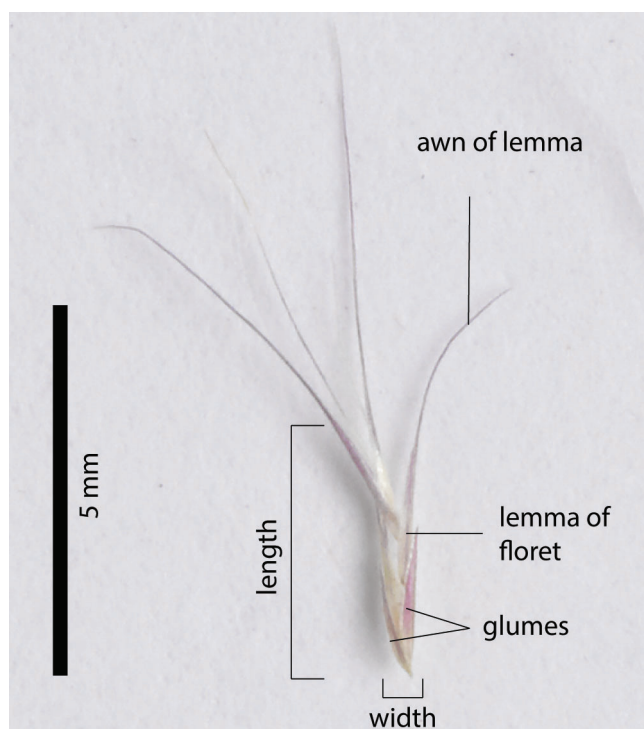


Fig. 4. Spikelet from a pressed specimen of *Ectrosia leporina* showing long narrow spikelet and long awns.



> DIAGNOSTIC FEATURES

As a general guide *Ectrosia* species are usually purple tinged, have awned lemmas (although they can occasionally be absent on florets of this species) and usually do not grow above 60 cm. This species is one of four species of *Ectrosia* which are few flowered and have a spikelet length to width ratio of 3 or less, compared to greater than 3 (Fig. 4). These shorter and wider spikelets are diagnostic for *Ectrosia anomala* (Fig. 5), *Ectrosia confusa* (Fig. 6), *Ectrosia gulliveri* (Fig. 7) and *Ectrosia nervilemma*. *Ectrosia nervilemma* is distinguished from the *E. gulliveri* and *E. confusa* by the straight or rounded back of the floret (Fig. 4). In *E. gulliveri* and *E. confusa* the lemma edges are concave with the tips of the lemma recurved or bent outwards which give the top a flared appearance (Fig. 6 & 7), and in *E. gulliveri* the lemmas are hairy. *Ectrosia anomala* is only collected from fewer than 10 localities in CYP and is distinguished from *E. nervilemma* by the more closely arranged spikelets and size of the spikelets (Fig. 5); 2-3 mm wide in *E. anomala* and 3-6 mm wide in *E. nervilemma*. Very superficially this species may be confused with species of *Eragrostis* (Fig. 8), the spikelets are similarly arranged on the flowering stems, are laterally compressed, and the spikelets consist of florets arranged in a herringbone pattern, however, species of *Eragrostis* do not have spikelets with awns/bristles present.



Fig. 5. Section of inflorescence from a pressed specimen of *Ectrosia anomala* showing spikelet size shape and arrangement.



Fig. 6. Section of inflorescence from a pressed specimen of *Ectrosia confusa* showing spikelet size shape and arrangement. Note recurved tips of florets towards tip of spikelet.



Fig. 7. Spikelet from a pressed specimen of *Ectrosia gulliveri* showing spikelet size. Note recurved tips of florets towards tip of spikelet and hairs on lemma.



Fig. 8. Image of inflorescence of *Eragrostis cummingii* showing awnless spikelets. PHOTO: RJ Cumming



Fig. 9. Image of *Ectrosia nervilemma* plants in situ. PHOTO: RJ Cumming

> NATURAL VALUES

Considered an important food species for the Golden Sholdered Parrot for wet season and dry season feeding and referred to as “glimmer grass” in Crowley et al. (2004). “Usually only used for short periods, glimmer grass flats are considered critical to parrot survival through periods of food scarcity” (Crowley et al 2004).

> HABITAT

Found north of Cairns throughout Cape York Peninsula (CYP), with the exception of the south western region of the peninsula from Staaten River National Park to Karumba (Fig. 10). Found with a high species diversity of annual grasses, and an overstorey of *Melaleuca*, *Casuarina* or *Eucalyptus* (Crowley et al 2004). Often found in seasonally inundated low lying areas with clay or sandy soils (Simon & Alfonso 2011).

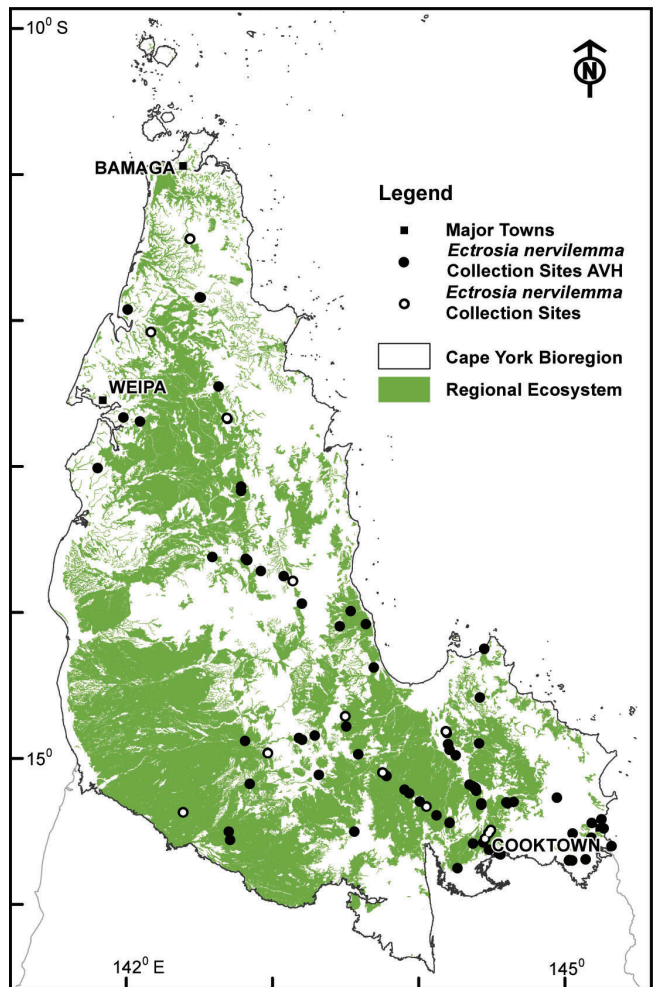


Fig 10. Map of CYP bioregion showing actual herbarium collections (from BRI and CNS) (solid circle) and site records (open circle) of *Ectrosia nervilemma*. The green shading indicates areas where this species might also be found, based on similarity of habitat to locations where the species has been recorded. (Mapping supplied by P. Bannink, DES). Data attribution: Environment and Science, Queensland Government, Biodiversity status of pre-clearing and 2015 remnant regional ecosystems series - version 10.0 licensed under Creative Commons Attribution.

RESOURCES:

AVH (2018) Australia's Virtual Herbarium, Council of Heads of Australasian Herbaria, <<http://avh.chah.org.au>>, accessed 8 Feb 2018.

Crowley, G.M., Garnett, S.T. and Shephard, S. (2004). Management guidelines for golden-shouldered parrot conservation. Queensland Parks and Wildlife Service, Brisbane.

Garnett ST and Crowley GM. 2002. Recovery Plan for the golden-shouldered parrot *Psephotus chrysopterygius* 2003-2007. Report to Environment Australia, Canberra. Queensland Parks and Wildlife Service, Brisbane.

Nightingale, M.E. & Weiller, C.M. in Mallett, K. (ed.) (2005), *Ectrosia*. Flora of Australia 44B: 438-439, Fig. 66B-C

Simon, B.K. (1986), *Planichloa* (Poaceae, Chloridoideae, Eragrostideae) a new grass genus from Northern Queensland. *Austrobaileya* 2(3): 212, figs 1-6.

Simon, B.K. & Alfonso, Y. (2011) *AusGrass2*, <http://ausgrass2.myspecies.info>/accessed on [8 February 2018].

For more information: www.capeyorknrm.com.au | 1300 132 262



This project is supported by the Queensland Government
Department of Natural Resources and Mines through the
Queensland Regional Natural Resource Management
Investment Program