

Summary 'cheat sheet' for Australian gorytine* wasps

		Most are medium to small wasps, rather unobtrusive. They seem less attracted to flowers than many other wasps. Their flight is typically erratic, with frequent deceleration while circling bushes. 31 genera globally - but just 6 in Australia. They prey upon nymphal & adult Hemiptera in the suborder Auchenorrhyncha (i.e. cicadas, leafhoppers, treehoppers, planthoppers & spittlebugs). Ocelli well developed; female pygidial plate usually distinct and wedge-shaped; labrum not prominent (unlike both <i>Bembecinus</i> & <i>Bembix</i>)								
		Australian genera	number of Australian species	obvious features	wings	eyes, ocelli & face	additional features	nesting/prey		
Bembicini (CRABRONIDAE: Bembicinae)	'gorytine wasps' *	<i>Exeirina</i>	<i>Exeirina</i>	1 sp (genus endemic to eastern Australia)	large wasps - 'cicada-killer'; orange abdomen & wings, black thorax	submarginal cell II petiolate		a sharply impressed line from mid ocellus to antennal socket area; female foretarsus with well-developed rake; lacks oblique scutal carina	cicadas; open burrow the 'size of mouse holes' (ref 2)	
		<i>Exeirina</i>	<i>Argogorytes</i>	4 spp		FOREWING MEDIA DIVERGES before, at or beyond cu-a	inner eye margins sinuate, frons broad but a little narrowed toward clypeus, breadth at level of midocellus less than that a short distance below	no sharply impressed line from ocelli to antennal sockets	forewing margin bowed out a little near base; lacks oblique scutal carina	little known, but one NZ species recorded with spittle bug nymphs (up to 3/cell) (ref 2)
		<i>Exeirina</i>	<i>Clitemnestra</i>	11 spp		FOREWING MEDIA DIVERGE AT or SLIGHTLY BEYOND cu-a	inner eye margins rather strongly convex (although some species strongly converging below); LID usually a little above antennal sockets	frons with deeply impressed line from mid ocellus to interantennal space	forewing margin nearly straight at base of costa; med-small to small (most <10mm); lack the oblique scutal carina found in most gorytines; unconstricted basal gastral segments** ; tergum I considerably more than half as broad at apex as tergum II; one species (<i>C. thoracica</i>) has a 'shovel-like' projection on sternum II;; labrum normally visible; female pygidial plate densely bristly; [** Ohl, 2002 stated that the width of tergum I is not a highly conserved character within the genus, so should be treated with caution (ref 3)]	hard soil, even gravel, probably using pre-existing holes; prey may include Cicadellidae & Cixiidae: Fulgoroidea (ref 2)
		<i>Gorytina</i>	<i>Austrogorytes</i>	31 spp (genus endemic to Australia)		FOREWING MEDIA DIVERGES WELL BEFORE cu-a	eyes converging below, often strongly		HINDWING media diverging beyond cu-a; oblique, scutal carina present; medium to fairly large; spiracular groove of propodeum present; mandible with 2 subteeth on inner margin; female foretarsus rake present; collar thin, rounded, not adhering closely to scutum; scutum distinctly punctate; size range <8mm to 18mm (in exceptionally large species)	adult and nymphal Eurymelidae (ref 1)
		<i>Spheciina</i>	<i>Ammatomus</i>	3 spp	antennae of both sexes clublike	FOREWING MEDIA DIVERGES BEFORE cu-a; veinlet of submarginal cell II between recurrens is short	eyes large, converging strongly below		medium-sized wasps; median line on frons distinctly impressed	planthoppers, Flatiidae (ref 2)
		<i>Spheciina</i>	<i>Sphecius</i>	1 sp	large, robust wasps, unusually compact thorax - 'cicada-killer'; mostly orange/brown, including head & thorax	stigma unusually small			unusually compact thorax; stout propodeum; labrum prominent; antennae long, gradually enlarged toward apex but not obviously clubbed; impressed medial line on frons often weak/incomplete; has posterolateral oblique, scutal carina; female clypeus with distinct basal and discal planes (in the Australian species)	burrow in soil; small cicadas, may up to 12 per cell (ref 1)
			Stizina	<i>Bembecinus</i>	7 spp	see Spheciiform sheet for details				
	Bembicina	<i>Bembix</i>	84 spp							

Drawing upon the following: Bohart & Menke (1976) *Sphecid Wasps of the World: A generic revision*; Naumann, I.D. (1991) Hymenoptera. *Insects of Australia (Chapter 42)*, CSIRO; *Australian Faunal Directory*, ABRS.

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See also southernforestlife.net

Other references:

- Evans, H.E. & Matthews, R.W. 1971. Nesting behaviour and larval stages of some Australian Nyssonine sand wasps (Hymenoptera: Sphecidae). *Australian Journal of Zoology*, **19**: 293-310
- Evans, H.E. & O'Neill, K.M. 2007. *The Sand Wasps: Natural History and Behaviour*. Harvard University Press
- Ohl, M. 2002. A new species of the wasp genus *Clitemnestra* Spinola, 1851 from New Caledonia (Hymenoptera, Apoidea, Crabronidae, Bembicinae). *Deutsche Entomologische Zeitschrift* **49**(2) 183-295
- Nemkov, P.G. & Ohl, M. 2011. A cladistic analysis and reclassification of the tribe Bembicini (Hymenoptera: Crabronidae: Bembicinae). *Zootaxa* **2801**: 27-47

* I use 'gorytine' wasps here to refer to those Australian Bembicini other than *Bembecinus* and *Bembix*. The six genera were formerly within a tribe Gorytini (e.g. Bohart & Menke, 1976; Naumann, 1991). They were more recently separated into 3 subtribes within the tribe Bembicini (e.g. ref 4). The collective, informal term 'gorytine' remains useful, however, as these wasps share many characteristics ... including their prey type (ref. 2).