

- Order HYMENOPTERA
 - Superfamily APOIDEA (s. l.)
 - Superfamily CHALCIDOIDEA
 - Superfamily CHRYSIDOIDEA
 - Superfamily CYNIPOIDEA
 - Superfamily EVANIOIDEA
 - Superfamily ICHNEUMONOIDEA
 - Superfamily PLATYGASTROIDEA
 - Superfamily PROCTOTRUPOIDEA
 - Superfamily VESPOIDEA
 - Family FORMICIDAE Latreille, 1809
 - Family MUTILLIDAE
 - Family POMPILIDAE
 - Family TIPHIIDAE
 - Subfamily Anthoboscinae
 - Subfamily Diamminae
 - Subfamily Myzininae
 - Subfamily Rhagasterinae
 - Subfamily Thynninae
 - Subfamily Tiphinae
 - Family RHOPALOSOMATIDAE
 - Family SCOLIIDAE
 - Family VESPIDAE
 - Superfamily TENTHREDINOIDEA

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- Infraorder Aculeata (Ants, Bees, and Stinging Wasps)
 - Superfamily Vespoidea (Ants and Vespoid Wasps)
 - Family Bradynobaenidae (Bradynobaenid Wasps)
 - Family Formicidae (Ants)
 - Family Mutillidae (Velvet Ants)
 - Family Myrmosidae (Myrmosid Wasps)
 - Family Pompilidae (Spider Wasps)
 - Family Rhopalosomatidae (Rhopalosomatid Wasps)
 - Family Sapygidae (Club-horned Wasps)
 - Family Scoliidae (Scoliid Wasps)
 - Family Vespidae (Hornets, Paper Wasps, Potter Wasps, and Allies)

- Infraorder Aculeata (Ants, Bees, and Stinging Wasps)
 - Superfamily Thynnoidea (Thynnid and Chyphotid Wasps)
 - Family Thynnidae (Thynnid Flower Wasps)
 - Subfamily Anthoboscinae
 - Subfamily Diamminae
 - Subfamily Methochinae
 - Subfamily Myzininae
 - Subfamily Thynninae

- Tiphiidae - Tiphinae**
- only 1 species in Aus (northern Aus)

POMPILIDAE

- tibial spurs prominent
- eye not (or only weakly) emarginate
- pronotum large and free (like Thynnidae)
- forewings with at least some closed cells
- agile, with long legs
- behaviour quite uniform ... jump, hop, flick wings in search for spiders

- Pepsinae** (Aust 23 genera, 86 species, contested taxonomy)
- very diverse group

- Pompilinae** (Aust 13 genera, 132 species)

- tend to be shiny black with silvery bands, and some with yellow or orange markings
- some mimic vespids, with longitudinally folded wings

SCOLIIDAE - Scoliinae

- mid & hind tibial spurs strong
- eye strongly emarginate
- pronotum not free
- pseudoventation of forewing (apical array of ridges and grooves)
- most large, stout, hairy and fossorial
- Aus = 20spp
- strongly sexually dimorphic, but both are winged

VESPIDAE

- eyes strongly emarginate (except Masarinae)
- forewing longitudinally folded (except Masarinae)
- pronotum short dorsally, acute above tegular, ventrally acute

Eumeninae

- most Aust species (~300)
- not social
- mud nest builders

Polistinae

- eusocial
- paper wasps

Vespinae

- 2 spp, introduced

Masarinae

- solitary, bee-like
- collect nectar and pollen
- Aus = 33spp (most in arid regions)

THYNNIDAE

- eyes not strongly emarginate
- forewing lacks pseudoventation & not folded
- pronotum large, dorsally, and free from mesonotum

Thynninae

- vast majority of Aust spp
- Aust = > 600 spp
- 1st submarginal cell usually has spur vein
- antennae arise beneath ridge
- mid tibia with 2 spurs
- sexually dimorphic, females nearly always wingless

Diamminae

- one species, *Diamma bicolor*

Anthoboscinae

- Aust = 20spp
- antennae simple sockets
- mostly black

- Infraorder Aculeata (Ants, Bees, and Stinging Wasps)
 - Superfamily Tiphoidae (Tiphid Flower Wasps and Allies)
 - Family Tiphiidae (Tiphid Flower Wasps)
 - Subfamily Brachycistidinae
 - Subfamily Tiphinae

Note that AFD shows older arrangement. iNat has Thynnidae as the major Flower Wasp family, with Thynninae as the major subfamily.

Taxonomies from Australian Faunal Directory and iNaturalist as at October 2020