



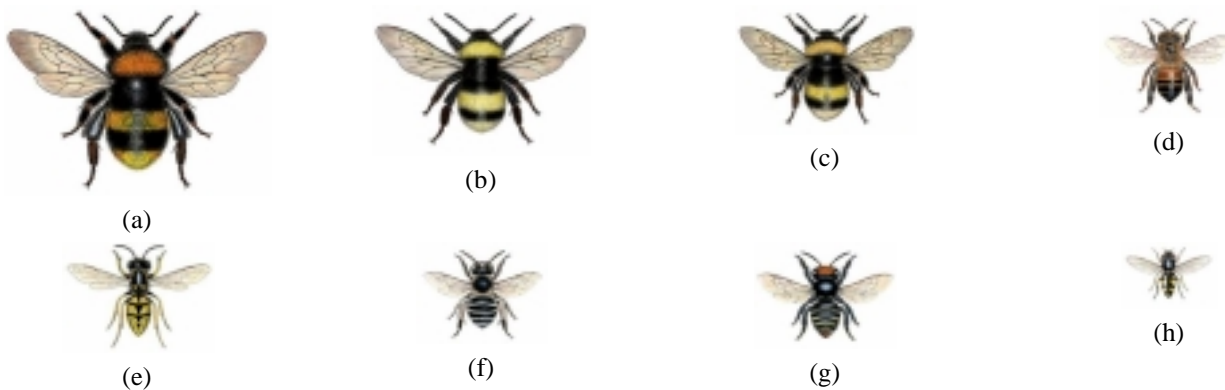
Keep Victoria Bumblebee Free

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*Figure 1. (a-c) Large earth bumblebee *Bombus terrestris* (a) queen, (b) male drone, and (c) worker; (d) European honeybee *Apis mellifera*; (e) European wasp *Vespula germanica*; (f) Blue-banded bee *Amegilla pulchra*; (g) leaf-cutting bee *Megachilidae*; (h) Hover fly, *Syrphidae**

(Collection: Tasmanian Museum and Art Gallery)

I think I've seen bumblebees in Victoria. What should I do?

Contact the Customer Service Centre 136 186

And provide the following information;

- Your name, address, and telephone number,
- A description of the insect, ie. size, colour, general appearance, noise when flying, speed of flight etc.
- The date, time, and exact location of the sighting,
- If possible, any information on habitat, host plant or flower, and weather conditions

If, from your description, bumblebees are suspected, a technical specialist may contact you to arrange a visit to the location where the sighting occurred.

I've collected an insect that I think is a bumblebee. What should I do?

Warning: Bumblebees can sting. Do not handle live bees. Only collect bumblebees if you are competent in the collection of stinging insects and it is safe to do so.

If you suspect an insect you've collected is a bumblebee, please submit the insect for examination:

1. Kill the bee in methylated spirits or ethyl alcohol

2. Place in a tightly capped glass or plastic tube or jar (but not in a paper envelope)
3. Label the container with your name, address, telephone number, and the date, time, and exact location where the insect was collected. If possible, include other relevant information such as habitat, host plant or flower, and weather conditions.
4. Post to: DPI Crop Health Services
Private Bag 15
South Eastern Mail Centre VIC 3176

What are bumblebees?

Bumblebees are large, hairy, social bees belonging to the family Apidae (subfamily Bombinae). Bumblebees are not native to Australia, however one species, the large earth bumblebee *Bombus terrestris*, has established in Tasmania.

What do bumblebees look like?

Although many native bees (Fig. 1 f-g) occur in Australia, none resemble bumblebees. The large earth bumblebee (Fig. 1 a-c) is hairier, and more heavily built, than the European honeybee (Fig. 1 d) or the European wasp (Fig. 1 e).

The large earth bumblebee is black with one yellow/ochre band across the front of the thorax, and another yellow/ochre band across the abdomen. An important identifying feature of the large earth bumblebee is the tip of the abdomen, which is buff or white.

Large earth bumblebee queens (Fig. 1 a) are 30-35 mm in length, and make a loud buzzing sound during flight. Workers (Fig. 1 c) are highly variable in size, ranging from 8 mm to 22 mm in length. Large earth bumblebee males (Fig. 1b) are similar in size and appearance to large workers.

In comparison, European honeybee *Apis mellifera* workers are approximately 15 mm long and are dark yellow-orange and black.

European wasp *Vespula germanica* workers average around 15mm long, and European wasp queens can be up to 20mm long. European wasps are bright yellow and black, and less hairy than bumblebees or honeybees.

Do bumblebees occur in Victoria?

Bumblebees are not believed to occur on mainland Australia. There have been occasional reports of bumblebees in Victoria, however none of these reports have been confirmed. The large earth bumblebee has established in Tasmania but is restricted to that State. Several species of bumblebees, including the large earth bumblebee, are established in New Zealand.

What impact might bumblebees have in Victoria?

In Victoria, the “introduction and spread of the large earth bumblebee *Bombus terrestris* into Victorian terrestrial environments” has been listed as a potentially threatening process under the Victorian Flora and Fauna Guarantee Act. Potential impacts include:

- Competition with native nectar feeding fauna,
- Decline in the seed production of native plant species,
- Increase in the seed production of introduced plants that currently lack an efficient pollinator (often called “sleeping weeds”).

Bumblebees can also sting, although they will generally only do so when physically threatened.

The large earth bumblebee is used commercially overseas to pollinate certain glasshouse and field crops.

However in Victoria bumblebees could pose a potential threat to the environment and primary production.

What is being done about bumblebees?

Studies are underway in Tasmania to assess the impact of bumblebees on other pollinators, on native plants, and on “sleeping weeds”. These studies are also investigating the distribution and spread of the large earth bumblebee in Tasmania, and whether pests or pathogens of the bumblebee are present.

In Victoria, the Department of Primary Industries (DPI) is preparing an Action Statement that describes the threat, and states what will be done to manage the threat. Some

actions, such as the preparation and implementation of prevention and early detection measures are already underway.

Can I bring bumblebees to Victoria?

Bumblebees cannot be imported to Australia from other countries. Contact the Australian Quarantine and Inspection Service (AQIS) for further information on importing animals to Australia.

Introducing the large earth bumblebee to Victoria from Tasmania may be a breach of the Livestock Disease Control Regulations 1995. Contact DPI’s Animal Health Branch (ph: 03 5430 4509) for advice.

Where can I obtain further information about bumblebees?

There are a number of web-sites with information on various species of bumblebees. Information on bumblebees in Tasmania can be obtained from:

Tasmanian Museum and Art Gallery

http://www.tmag.tas.gov.au/bumblebees/bee_survey.htm

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