

Current Locust Situation

The following situation update is issued as interim advice in lieu of the regular monthly Locust Bulletin.

Widespread and repeated rainfall in critical locust population areas has prevented ground surveys during October. Consequently, full details of locust populations and forecasts for regions are currently unavailable.

A full Locust Bulletin will be prepared as soon as weather and ground conditions permit data collection.

GENERAL SITUATION IN OCTOBER AND OUTLOOK TO JANUARY 2023

Across inland eastern Australia, October rainfall totals ranged from just above 10 mm in the Birdsville area to 200-250 mm in eastern and south-eastern parts, at above average to highest on record levels. Apart from the arid interior of New South Wales, much of NSW and Victoria received more than 100 mm of rain in October causing significant flooding. Parts of inland areas were at below average (1-2 degrees) of monthly mean temperature, due to below average to very much below average maximum temperatures despite above average to very much above average minimum temperatures. As the third consecutive La Niña event may continue into early 2023, current forecasts are that rainfall will be above average for the November 2022 to January 2023 period, with cooler than average temperatures.

Australian plague locust

Chortoicetes terminifera

Populations are likely at low–medium levels with some localised high densities in inland eastern Australia. No surveys were conducted in October by APLC staff due to adverse access and weather conditions. Agriculture Victoria confirmed a hatching on 03 October south of Ultima, where eggs returned to the APLC laboratory had less than 20% mortality including from *Scelio fulgidus* parasitism. Primary Industries and Regions South Australia (PIRSA) conducted some ground surveys in early and mid-October and identified hatchlings and young bands in the Flinders district and surrounding area. Hatching and banding reports have been received by PIRSA from this region from late September onwards. Hatching and banding reports were also received from the Broken Hill-Wentworth area in mid-October. However, Sub-Band density 5th instar nymphs and High-Numerous density fledglings were encountered by APLC staff on 28 October along a long-distance of the Silver City highway between Wentworth and Broken Hill. Neither light traps in SA and NSW nor the insect monitoring radar in Hay, NSW, recorded any locust activity during October. These findings collectively indicate that spring generation nymphs had hatched from overwintering eggs during late September to late October in the southern part of inland eastern Australia, and some overwintering nymphs survived and successfully developed into adults.

The overall outlook is for a low to medium density population level continue across inland eastern Australia, with localised medium to high densities of spring generation nymphs in the SA Flinders and Riverland, NSW Lower Western and Riverina, and Vic Mallee districts and adjacent areas, with low to medium densities of overwintering nymphs and adults. It is also possible that populations in south-western Queensland continue breeding under current favourable habitat conditions.

It is likely that some nymphs will form bands after floodwaters recede and some swarms may develop from surviving bands from early December onwards, and summer generation nymphs hatch from early January 2023 onwards. Some egg-laying may occur among these adults from overwintered nymphs from mid-November onwards.

There is a low to moderate likelihood of region-wide infestations developing in the SA Flinders and North East, NSW Lower Western and Riverina, and Vic Mallee districts. Widespread high-density infestations are unlikely during spring and early summer.

Spur-throated locust***Austracris guttulosa***

With previously identified low to medium levels of adult populations in parts of the Qld Central West, Maranoa and Warrego, and Central Highlands districts, an early season breeding event may well be underway under the current favourable habitat conditions. The light trap at White Cliffs caught 7 to 37 adults per night during late October indicating that breeding may be occurring over a broad area. Some localised medium-high density nymphs may, therefore, hatch from mid-November onwards.

With wet conditions likely to continue in tropical and subtropical Queensland, higher reproduction and nymphal survival rates are likely, which could result in more localised medium – high-density populations.

There is a medium risk of a widespread low-medium density infestation, and localised high-density infestations may develop in subtropical Queensland during late spring and early summer.

Migratory locust***Locusta migratoria***

Under current and future favourable habitat conditions, breeding should continue in the Central Highlands of Queensland and surrounding areas. Nevertheless, high-density gregarisation is unlikely to result from the previously very low population level.

There is a very low risk of a widespread infestation developing during late spring and early summer.

It is important that any locust activity be reported as soon as possible to your local biosecurity authority, primary industries department or to the commission. A toll-free call to the APLC hotline can be made on 1800 635 962. An answering machine is attached to this phone for after-hours calls. Reports can also be emailed to APLC via aplc@agriculture.gov.au or made through the website at https://www.agriculture.gov.au/pests-diseases-weeds/locusts/landholders/reporting_locusts.