# Locust Bulletin

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## **GENERAL SITUATION IN DECEMBER AND OUTLOOK TO MARCH 2025**

## **Australian Plague Locust**

## Chortoicetes terminifera

The overall locust population increased moderately to low-medium levels across inland eastern Australia with some localised high-density adults persistent in the Girilambone-Nyngan areas and medium-density adults present consistently in the Ivanhoe-Jerilderie areas of New South Wales in December. Limited surveys were conducted in December in NSW due to road accessibility. Surveys identified a small Low-Density Swarm in the Girilambone-Nyngan areas with some Numerous-density adults detected in other parts of the Central West district. Frequent Numerous-density adults were identified in the Ivanhoe and Hay-Jerilderie areas with some Concentration-density adults and occasional nymphs discovered. Adult activities were reported from these regions and several bands were reported later from the Collie-Quambone-Coonamble areas. Some Numerous-density adults were also identified in the Tibooburra area. Nil capture was recorded by light traps in Dulkaninna of South Australia, Fowlers Gap and White Cliffs of NSW, and Thargomindah of Queensland for December. The UNSW insect monitoring radar in Hay was not accessible due to the disruption of Telstra mobile network upgrade.

Most habitats remained unfavourable for locust breeding during December. The inland eastern Australia received nil – 25 mm of rainfall over much of the arid interior but up to 150 mm in some parts of the Central Highlands and Darling Downs districts of Queensland, ranging from very much below average to very much above average levels historically. December temperatures over inland eastern Australia were 1–3 degrees above averages at above average to very much above average levels. With the forecast for above average rainfall for January and February and likely frequent storm weather during summer, localised breeding is likely to continue under favourable habitat conditions, and a moderate increase of locust populations is possible in some parts of inland eastern Australia especially the inland Queensland.

The overall outlook is for low-medium density populations across inland eastern Australia, with possible localised high densities of summer generation developing in Queensland and parts of NSW. It is less likely that any large bands or swarms will develop until March 2025.

There is a low likelihood of widespread infestations developing during summer.

10 January 2025



## **Spur-throated Locust**

## Austracris guttulosa

The overall population likely remained at low levels across inland eastern Australia with some medium-density populations present in inland eastern Australia. Limited surveys conducted in December identified Isolated-Numerous density adults in New South Wales and southern part of Queensland with occasional nymphs detected. A few locusts were captured in late December by the light trap in White Cliffs of New South Wales with no captures by other light traps. With heavy rainfall in some parts of Queensland and NSW and the forecast for above average rainfall for January and February, habitat conditions should improve and breeding is likely to continue under favourable habitat conditions. Localised high-density nymphs may develop in some areas of central northern NSW and Queensland.

There is a low risk of a widespread infestation. Though, a general increase in numbers is likely to continue with forecast rainfall in favourable habitats during summer.

# **Migratory Locust**

# Locusta migratoria

The overall population was likely to remain at very low levels across inland eastern Australia. Limited December surveys only identified a few adults. However, with more than 50 mm of rainfall during December over the traditional locust habitats in Queensland and NSW and the forecast above average rainfall for January and February, localised breeding is likely to continue under favourable habitats. High-density populations are unlikely to result from the current very low background population levels.

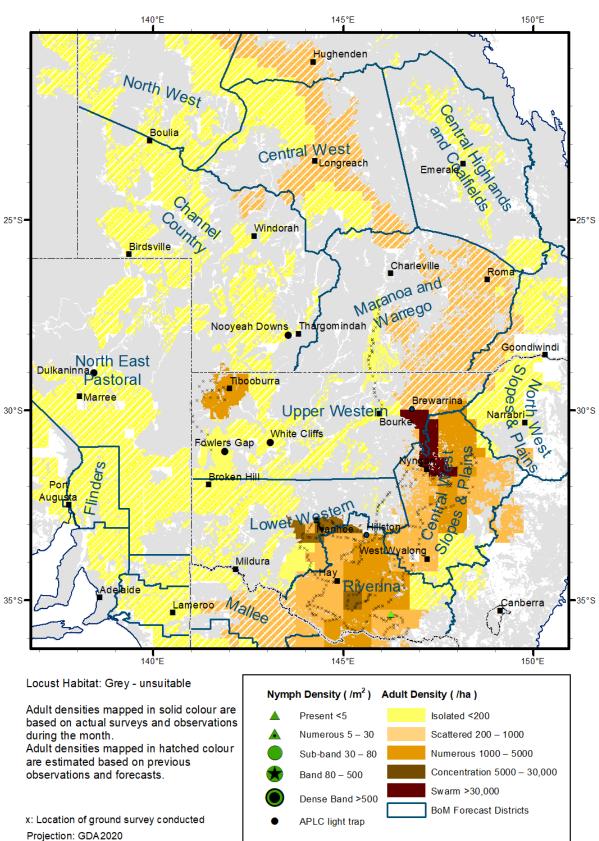
There is a very low risk of a widespread infestation developing during summer.

It is important that any locust activity be reported as soon as possible to your local biosecurity authority or to the Commission. A toll-free call to the Commission can be made on 1800 635 962. An answering machine is attached to this locust hotline for after-hours calls. Reports can also be emailed to the Commission at <a href="locust.report@agriculture.gov.au">locust.report@agriculture.gov.au</a> or sent through the web page at <a href="https://www.agriculture.gov.au/pests-diseases-weeds/locusts/landholders/reporting\_locusts">https://www.agriculture.gov.au/pests-diseases-weeds/locusts/landholders/reporting\_locusts</a>.

# Locust distribution map—Chortoicetes terminifera

# **Australian Plague Locust Distribution**

09 - 19 December 2024



# **Australian Plague Locust**

(Chortoicetes terminifera)

## SITUATION IN DECEMBER AND OUTLOOK TO MARCH 2025

## **NEW SOUTH WALES**

#### NORTH WEST SLOPES & PLAINS

## **Northwest Local Land Services**

#### Locusts and conditions

- No surveys were conducted in December in this district.
- No locust reports were received from this district in December.
- In December variable 15 100 mm of rainfall was received over this district, generally at very much below average to average levels. Some habitats should remain favourable for locust breeding.

#### **Forecast**

- Breeding is likely to continue under favourable habitat conditions, and a moderate increase may result from currently low background population.
- There is a low probability of any significant migrations during summer.
- The general population density is expected to remain at low-medium levels during summer.

#### **Risks**

• There is a low risk of a regional infestation developing during summer.

#### **CENTRAL WEST SLOPES & PLAINS**

## **Central West Local Land Services**

## Locusts and conditions

- Surveys in December identified a Low-Density Swarm between Girilambone and Nyngan with some Numerous-density adults persistent in other parts of this district.
- Adult activities were reported in early December from the Collie-Quambone-Coonamble areas where several small bands developed later which required landowner control.
- 50 100 mm of rainfall were received over much of this district in December, generally at above average levels with parts at very much above average levels.

## **Forecast**

- Breeding is likely to continue under favourable habitat conditions generated from heavy rains during late November and early December.
- Summer generation adults may commence fledging from mid-January onwards with possible swarms developing from uncontrolled bands. There is a low-moderate probability of migrations during summer.
- The general population is expected at low-medium levels with possible localised high densities developing during summer.

## **Risks**

There is a low-moderate risk of regional infestations developing during summer.

#### **RIVERINA**

#### Riverina, Murray Local Land Services

#### Locusts and conditions

- Surveys in December identified frequent Numerous-density adults in the Hay-Deniliquin-Jerilderie areas with occasional Concentration-density adults detected. Isolated-Scattered densities of adults and occasional Present-density nymphs were identified in other parts of this district
- No reports of locust activities were received from this district in December.
- The UNSW insect monitoring radar in Hay was not accessible due to the disruption of Telstra mobile network upgrade.
- December rainfall of 25–50 mm was received by much of this district in early December, generally at average levels.

#### **Forecast**

- As no further rainfall was recorded through December, only limited breeding is possible under favourable habitats, but any large bands are less likely to develop during summer.
- There is a low-moderate probability of migration events during summer.
- The population level is likely to remain at low-medium levels for the summer.

#### **Risks**

There is a low-moderate risk of regional infestation developing during summer.

## **UPPER and LOWER WESTERN**

## **Western Local Land Services**

## Locusts and conditions

- Surveys conducted in December identified consistent Numerous-density adults in the Ivanhoe area where occasional Concentration-density adults were also detected. Some Numerous-density adults were identified in the Tibooburra area and other parts of the Lower Western district. No nymphs were identified by survey.
- Light traps at White Cliffs and Fowlers Gap did not capture any locusts in December.
- Apart from the report received from the Ivanhoe area in early December, no further reports were received from these two districts.
- In December 5 25 mm of rainfall was received by the western part of these two districts while 25 50 mm of rainfall fell over the eastern part, generally at average levels with some parts at above average levels.

### **Forecast**

- Some localised sporadic breeding is possible under favourable habitat conditions.
- There is a low-moderate probability of migration/dispersal events during summer.
- The overall population is likely to remain at low levels with possible localised medium-density populations developing during summer.

## Risks

There is a low risk of regional infestations developing during summer.

All locust activity should be reported to your nearest <u>Local Land Services Biosecurity Officer</u> on 1300 795 299 or to the Commission. A toll-free call to the Commission 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 the Commission at <u>locust.report@agriculture.gov.au</u> or sent through the web page at <a href="https://www.agriculture.gov.au/pests-diseases-weeds/locusts/landholders/reporting\_locusts">https://www.agriculture.gov.au/pests-diseases-weeds/locusts/landholders/reporting\_locusts</a>.

## **QUEENSLAND**

#### **CENTRAL HIGHLANDS AND COALFIELDS**

## Isaac and Central Highlands Regional Councils; Banana Shire

## Locusts and conditions

- No surveys were conducted in this district in December.
- No reports of locust activity were received from this district in December.
- December rainfall totals were from 50 mm to 150 mm over much of this district, ranging from average to above average levels.

#### **Forecast**

- Localised breeding is possible under favourable habitat conditions, but general population is likely to remain at low levels.
- There is a very low probability of any significant migration events during summer.

#### Risks

• There is a very low risk of a regional infestation developing during summer.

## DARLING DOWNS AND GRANITE BELT

## Western Downs and Goondiwindi Regional Councils

## Locusts and conditions

- No surveys were conducted in this district in December.
- No report of locust activity was received this district in December.
- This district received 50 150 mm of rainfall in December, generally at average levels over much of the district.

## **Forecast**

- Breeding is likely to continue under favourable habitat conditions with possible localised higher densities.
- There is a low-moderate probability of migration events during summer.

## **Risks**

There is a low-moderate risk of a regional infestation developing during summer.

## **CENTRAL WEST**

## Barcaldine, Longreach, and Blackall-Tambo Regional Council; Flinders and Winton Shires

## Locusts and conditions

- No surveys were conducted in this district in December.
- No locust reports were received from this district in December.
- Rainfall of 20 50 mm was received by much of this district in December with 50 130 mm of rainfall fell over the northeastern part, ranging from average to very much above average levels.

## **Forecast**

- Sporadic breeding is possible under favourable habitat conditions with possible localised higher densities.
- There is a low probability of any significant migration events during summer.

## Risks

• There is a low risk of a regional infestation developing during summer.

## **MARANOA AND WARREGO**

## Maranoa Regional Council; Murweh, Paroo, and Balonne Shires

#### Locusts and conditions

- Limited surveys conducted in mid-December identified Isolated-density adults in the Cunnamulla-Barrigan areas with no nymphs detected.
- No locust reports were received from this district in December.
- This district received 25 80 mm of rainfall December with higher volumes over the northeastern part, generally at average levels.

## **Forecast**

- Limited breeding is likely to occur under favourable habitat conditions, but any resulting populations
  are likely at low levels.
- There is a low-moderate probability of migration events during summer.

#### **Risks**

• There is a low risk of a regional infestation developing during summer.

## **NORTH WEST**

## Mt Isa, Cloncurry, McKinlay, Boulia, and Winton Shires

#### Locusts and conditions

- No surveys were conducted in this district in December.
- No locust reports were received from this district in December.
- This district received 55 50 mm of rainfall in December, generally at below average to average levels.

#### **Forecast**

- Sporadic breeding is possible, but the locust population is likely to remain at low levels.
- There is a low probability of any significant migration/redistribution events during summer.

## Risks

• There is a low risk of a regional infestation developing during summer.

## **CHANNEL COUNTRY**

## Boulia, Diamantina, Barcoo, Quilpie, and Bulloo Shires

## Locusts and conditions

- No surveys were conducted in this district in December.
- No locust reports were received from this district in December.
- The light trap in Thargomindah did not capture any locusts in December.
- This district received 10 50 mm of rainfall in December, at average to above average levels.

## **Forecast**

- Sporadic breeding is possible, but any resulting population is likely to remain at low levels.
- There is a low probability of migration/redistribution events during summer.

#### **Risks**

There is a low risk of a regional infestation developing during summer.

All locust activity should be reported to <u>Department of Primary Industries</u> via the <u>Customer Service Centre</u> on 13 25 23, online reporting form at <a href="https://www.daf.qld.gov.au/contact/report-a-biosecurity-pest-or-disease?form=other-1554285">https://www.daf.qld.gov.au/contact/report-a-biosecurity-pest-or-disease?form=other-1554285</a>, email at <a href="mailto:info@daf.qld.gov.au">info@daf.qld.gov.au</a>, or to the Commission. A toll-free call to the Commission can be made on 1800 635 962. An answering machine is attached to this locust hotline for after-hours calls. Reports can also be sent to the Commission through the web page at <a href="mailto:https://www.agriculture.gov.au/pests-diseases-weeds/locusts/landholders/reporting\_locusts">https://www.agriculture.gov.au/pests-diseases-weeds/locusts/landholders/reporting\_locusts</a> or emailed at <a href="locusts-report@agriculture.gov.au">locusts-report@agriculture.gov.au</a>.

## **SOUTH AUSTRALIA**

## NORTH EAST PASTORAL and FLINDERS

## Locusts and conditions

- No surveys were conducted in these two districts in December.
- The light-trap at Dulkaninna did not capture any locusts in December.
- A report of locusts attracted by house lights were received from the Innamincka area in late December.
- In December less than 25 mm of rainfall was received over much of these two districts with the northeastern part of the North East district received 25-40 mm of rainfall, ranging from very much below average to above average levels.

#### **Forecast**

- Sporadic breeding is possible under favourable habitat conditions, but any resulting population is likely to remain at low levels.
- Locust bands and swarms are unlikely to develop during summer.
- There is a very low probability of any significant migration/dispersal events during summer.

#### **Risks**

• There is a very low risk of a regional infestation developing during summer.

#### RIVERLAND and MURRAYLANDS

## Locusts and conditions

- No surveys were conducted in the two districts in December.
- No locust reports were received from these two districts in December.
- December rainfall totals were less than 16 mm in these two districts, at very much below average to below average levels.

## **Forecast**

- Limited sporadic breeding is possible, but any resulting population is likely to remain at low levels.
- There is a very low probability of any significant migration/dispersal events during summer.

## Risks

• There is a very low risk of a regional infestation developing during summer.

All locust activity should be reported to <a href="Primary Industries and Regions South Australia">Primary Industries and Regions South Australia</a> via the Exotic Plant Pest Hotline on 1800 084 881, online plant pest reporting form at <a href="https://form.jotform.co/70732909804864">https://form.jotform.co/70732909804864</a>, or to the Commission. A toll-free call to the Commission can be made on 1800 635 962. An answering machine is attached to this locust hotline for afterhours calls. Reports can also be sent to the Commission through the web page at <a href="https://www.agriculture.gov.au/pests-diseases-weeds/locusts/landholders/reporting locusts">https://www.agriculture.gov.au/pests-diseases-weeds/locusts/landholders/reporting locusts</a> or email at <a href="locust-report@agriculture.gov.au">locust-report@agriculture.gov.au</a>.

## **VICTORIA**

#### **MALLEE**

## Mildura and Swan Hill Rural Cities; Yarriambiack and Buloke Shires

#### Locusts and conditions

- No surveys were conducted in December in this district.
- No reports were received from this district in December.
- December rainfall totals were 8 to 30 mm over this district, generally at average levels.

#### **Forecast**

- Limited sporadic breeding is possible under suitable habitats, but any resulting population is likely to remain at low levels.
- It is unlikely that any bands or swarms developing during summer.
- There is a very low probability of any significant migration events during summer.

## **Risks**

• There is a very low risk of a regional infestation developing during summer.

## **WIMMERA**

#### **Hindmarsh and West Wimmera Shires**

## Locusts and conditions

- No surveys were conducted in this district in December.
- No locust reports were received from this district in December.
- December rainfall totals were 10 40 mm over much of this district, generally at average levels.

#### **Forecast**

- Limited sporadic breeding is possible under suitable habitat conditions, but any resulting population is likely to remain at low levels.
- It is unlikely that any bands or swarms developing during summer.
- There is a very low probability of any significant migration events during summer.

## **Risks**

• There is a very low risk of a regional infestation developing during summer.

All locust activity should be reported to <u>Agriculture Victoria</u> via the <u>Customer Contact Centre</u> on 136 186, online form at <a href="https://forms.bio.vic.gov.au/locusts">https://forms.bio.vic.gov.au/locusts</a>, or to the Commission. A toll-free call to the Commission can be made on 1800 635 962. An answering machine is attached to this locust hotline for after-hours calls. Reports can also be sent to the Commission through the web page at <a href="https://www.agriculture.gov.au/pests-diseases-weeds/locusts/landholders/reporting\_locusts">https://www.agriculture.gov.au/pests-diseases-weeds/locusts/landholders/reporting\_locusts</a>, or emailed at <a href="locust.report@agriculture.gov.au">locust.report@agriculture.gov.au</a>.

# Glossary of locust terms and density categories used in the Locust Bulletin

| Term       | Definition   |
|------------|--|
| adult      | A fully developed, sexually mature locust capable of flight and reproduction               |
| band       | Dense congregation of nymphs (hopper band), usually marching together                      |
| diapause   | Period of dormancy induced in anticipation of unfavourable environmental conditions        |
| dispersal  | Spreading of individuals away from others (adaptation)                                     |
| egg bed    | An area of soil containing many egg pods (usually hundreds per square metre)               |
| fledge     | Final instar moulting to a soft-bodied adult (fledgling) incapable of long-distance flight |
| hatch      | A young nymph (hatchling) emerging from an egg   |
| instar     | A discrete stage of nymphal development after hatch/moult                                  |
| laying     | Female locusts depositing clutches of 20–60 eggs into the ground in froth-lined egg pods   |
| migration  | Seasonal collective movements from one place to another (behaviour)                        |
| nymph      | An immature locust (hopper) having the same morphological appearance as the adult          |
| quiescence | Cessation of growth and reduction of metabolic activity under unfavourable conditions      |
| swarm      | Dense congregation of adults, milling at the same spot or flying closely together          |

## Locust density categories

Where higher densities occur, a large proportion of the regional population is concentrated in very small areas with lower densities elsewhere, so the higher densities cannot be extrapolated over the area of an entire region. A range of density classes is usually found within a surveyed region.

| Nymph Densities | Number per m <sup>2</sup> |   |     |  |
|-----------------|---------------------------|---|-----|--|
| Present         | 1                         | _ | 5   |  |
| Numerous        | 6                         | _ | 30  |  |
| Sub-band        | 31                        | _ | 80  |  |
| Band            | 81                        | _ | 500 |  |
| Dense Band      | >500                      |   |     |  |

| Adult Densities      | Number p | Number per m <sup>2</sup> |      |         | Number per 250 m <sup>2</sup> |        |  |
|----------------------|----------|---------------------------|------|---------|-------------------------------|--------|--|
| Isolated             |          | <                         | 0.02 | 1       | _                             | 5      |  |
| Scattered            | 0.024    | _                         | 0.1  | 6       | _                             | 25     |  |
| Numerous             | 0.104    | _                         | 0.5  | 26      | _                             | 125    |  |
| Concentration        | 0.504    | _                         | 3    | 126     | _                             | 750    |  |
| Low Density Swarm    | 4        | _                         | 10   | 751     | _                             | 2,500  |  |
| Medium Density Swarm | 11       | _                         | 50   | 2,501   | _                             | 12,500 |  |
| High Density Swarm   | >50      |                           |      | >12,500 |                               |        |  |

| General density classes | Nymph densities     | Adult densities |           |
|-------------------------|---------------------|-----------------|-----------|
| very low, occasional    | Nil – Present       | Nil –           | Isolated  |
| low                     | Present – Numerous  | Isolated -      | Scattered |
| medium                  | Numerous - Sub-band | Scattered -     | Numerous  |
| high                    | Bands               | Concentration - | Swarms    |

# Reporting locust infestations

It is important that all locust activity be reported as soon as possible to your nearest state biosecurity agency office or to the Australian Plague Locust Commission.

State Authority for reporting locusts

New South Wales Local Land Services (LLS)

Queensland <u>Department of Agriculture and Fisheries</u>
South Australia <u>Department of Primary Industries and Regions</u>

Victoria <u>Agriculture Victoria</u>

Reports to the **Australian Plague Locust Commission** can be made by:

Free call (Canberra): 1800 635 962 (24 hours)

Email: <a href="mailto:locust.report@agriculture.gov.au">locust.report@agriculture.gov.au</a>

Website: <a href="https://www.agriculture.gov.au/pests-diseases-">https://www.agriculture.gov.au/pests-diseases-</a>

weeds/locusts/landholders/reporting\_locusts