Locust Bulletin

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GENERAL SITUATION IN NOVEMBER AND OUTLOOK TO FEBRUARY 2025

Australian Plague Locust

Chortoicetes terminifera

Locust populations remained at low levels across inland eastern Australia with some localised medium-density adults persistent in the Trangie-Nyngan and likely Broken Hill-White Cliffs areas of New South Wales in November. Limited surveys conducted in November identified consistent low-density adults in western Queensland and southern NSW with medium-density adults remaining in the Nyngan region. Only occasional nymphs were identified in the Nyngan region. A few locusts were caught by light traps in Thargomindah, Queensland and White Cliffs, NSW in late November with locust activities under house lights also reported from the Innamincka area of SA and Tibooburra area of NSW. Nil capture was recorded by light traps in Dulkaninna, South Australia and Fowlers Gap, NSW for November. The UNSW insect monitoring radar in Hay was not accessible due to the disruption of Telstra mobile network upgrade, but swarming adults were reported from the Ivanhoe-Mossgiel areas in early December. Both light-trap captures and reports indicate the occurrence and possible redistribution of localised populations.

Most habitats were unfavourable for locust breeding during the first half of November. The inland eastern Australia received variable 10-200 mm of rainfall in November with less than 50 mm over much of the arid and semi-arid interior while 150-200 mm of rain was recorded in the Charleville region, ranging from average to very much above average levels historically. November temperatures over inland eastern Australia were 1-4 degrees above averages. With the forecast for above average rainfall for December, 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.

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

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

05 December 2024

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 Queensland. Limited surveys conducted in late November identified consistent Scattered-Numerous density adults in the Central West and North West districts of Queensland with occasional nymphs detected. A few locusts were captured in late November by the light traps in Thargomindah of Queensland and White Cliffs of New South Wales with no captures in Dulkaninna (SA) and Fowlers Gap (NSW) for November. With less than 10 mm of rainfall totals for October and early November over much of inland Queensland, no significant breeding is likely until sufficient rainfall produces favourable habitat conditions. With several heavy rains received in parts of inland eastern Australia in November and the forecast for above average December rainfall, habitat conditions should improve and widespread breeding is likely to commence.

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. However, with more than 50 mm of rainfall during November over the traditional locust habitats and the forecast above average December rainfall, localised breeding is likely to continue under favourable habitats. High-density populations are unlikely to result from the current very low background population levels.

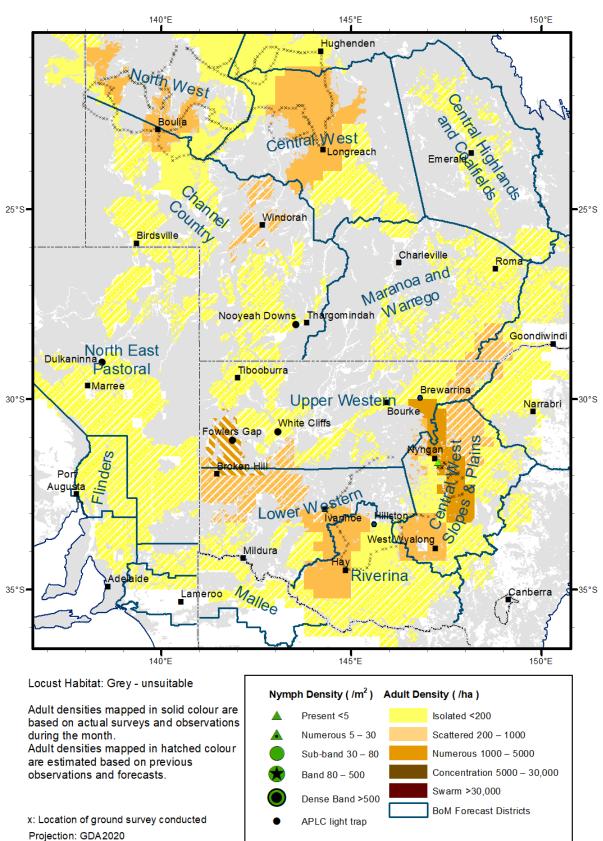
There is a very low risk of a widespread infestation developing during summer.

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 locust.report@agriculture.gov.au or sent through the web page at https://www.agriculture.gov.au/pests-diseases-weeds/locusts/landholders/reporting_locusts.

Locust distribution map—Chortoicetes terminifera

Australian Plague Locust Distribution

11 - 28 November 2024



Australian Plague Locust

(Chortoicetes terminifera)

SITUATION IN NOVEMBER AND OUTLOOK TO FEBRUARY 2025

NEW SOUTH WALES

NORTH WEST SLOPES & PLAINS

Northwest Local Land Services

Locusts and conditions

- No surveys were conducted in November in this district.
- No locust reports were received from this district in November.
- In November 50 100 mm of rainfall was received over much of this district, generally at average to above average levels. Habitat conditions should improve for locust breeding.

Forecast

- Breeding is likely to occur 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 November identified some Numerous-density adults persistent in the Trangie-Nyngan areas with only occasional nymphs detected.
- No further locust reports were received from this district in November.
- This district received 50 100 mm over much of its eastern part and 30 50 mm of rainfall in the western part (from Nevertire) in November, ranging from average to above average levels.

Forecast

- Breeding is likely to continue under favourable habitat conditions generated from rains since mid-November.
- Summer generation nymphs may commence hatching from early December onwards with possible bands developing. There is a low probability of any significant migrations during summer.
- The general population is expected to remain at low-medium levels 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 the northern part of this district identified Isolated to Scattered-density adults with no nymphs detected in November.
- No reports of locust activities were received from this district in November.

- The UNSW insect monitoring radar in Hay was not accessible due to the disruption of Telstra mobile network upgrade.
- November rainfall of 15–50 mm was received by much of this district, ranging from average to above average levels.

Forecast

- Limited breeding is possible under favourable habitats, but bands are unlikely to form during summer.
- There is a low probability of any significant migration events during summer.
- The population level is likely to remain at low levels for the summer.

Risks

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

UPPER and LOWER WESTERN

Western Local Land Services

Locusts and conditions

- Surveys were conducted in the Cobar-Ivanhoe areas identified Isolated-Scattered densities of adults in the Ivanhoe and surrounding areas without any nymphs detected in November.
- The light trap at White Cliffs captured a few locusts in late November, but no captures were recorded by the light trap at Fowlers Gap. Locusts attracted by house lights were noticed in the Tibooburra area in early December.
- A locust report of swarming activity was received from the Mossgiel area in early December, indicating the existence and aggregation of localised populations affected by storming weather.
- The medium-density population identified in the northeast of Broken Hill in October is likely to have remained within the region through November with local redistribution and breeding on late November and early December rainfall.
- Much of these two districts received 25 50 mm of rainfall with parts below 25 mm or above 50 mm, generally ranging from average to above average levels.

Forecast

- Some localised sporadic breeding is possible under favourable habitat conditions, and some small bands may develop.
- There is a low probability of any significant 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 https://www.agriculture.gov.au/pests-diseases-weeds/locusts/landholders/reporting_locusts.

QUEENSLAND

CENTRAL HIGHLANDS AND COALFIELDS

Isaac and Central Highlands Regional Councils; Banana Shire

Locusts and conditions

- No surveys were conducted in this district in November.
- No reports of locust activity were received from this district in November.
- November rainfall totals were from 25 mm to 150 mm varying over much of this district, ranging from average to very much average levels.

Forecast

- Localised breeding is possible under favourable habitat conditions, but any resulting 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 November.
- No report of locust activity was received this district in November.
- This district received 80 150 mm of rainfall in November, ranging from above average to very much above average levels.

Forecast

- Breeding is likely to continue 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-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

- Surveys conducted in the northwestern part of this district identified consistent Isolated to Scattereddensity adults with no nymphs detected.
- No locust reports were received from this district in November.
- This district received 15 50 mm of rainfall in the northern part and 50 130 mm of rainfall in the southern part in November, 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-moderate probability of some significant migration events during summer.

Risks

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

MARANOA AND WARREGO

Maranoa Regional Council; Murweh, Paroo, and Balonne Shires

Locusts and conditions

- No surveys were conducted in this district in November.
- No locust reports were received from this district in November.
- This district received 25 50 mm of rainfall in the southwestern part and 50 220 mm in the northeastern part, ranging from average to highest on record levels.

Forecast

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

Risks

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

NORTH WEST

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

Locusts and conditions

- Surveys identified adults at Isolated-density with some Scattered-density in this district in November.
 No nymphs were identified by survey in November.
- No locust reports were received from this district in November.
- This district received 25 95 mm of rainfall in November, ranging from above average to very much above 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

- Surveys were conducted in parts of The Boulia and northern Diamantina areas in this district where some Isolated-density adults were identified with no nymphs detected.
- No locust reports were received from this district in November.
- The light trap in Thargomindah recorded a few adults in late November.
- This district received 20 50 mm of rainfall in November, 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-moderate 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 Agriculture and Fisheries</u> via the <u>Customer Service Centre</u> on 13 25 23, online reporting form at https://www.daf.qld.gov.au/contact/report-a-biosecurity-pest-or-disease, email at info@daf.qld.gov.au, 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 https://www.agriculture.gov.au/pests-diseases-weeds/locusts/landholders/reporting_locusts or emailed at locust.report@agriculture.gov.au.

SOUTH AUSTRALIA

NORTH EAST PASTORAL and FLINDERS

Locusts and conditions

- No surveys were conducted in these two districts in November.
- The light-trap at Dulkaninna did not capture any locusts in November.
- A report of locusts attracted by house lights were received from the Innamincka area in late November.
- In November 10 25 mm of rainfall was received over the northeastern part of the North East district, and 25 80 mm of rainfall was received by the southwestern part of these two district, generally at above average to very much above average levels.

Forecast

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

Risks

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

RIVERLAND and MURRAYLANDS

Locusts and conditions

- No surveys were conducted in November in the two districts.
- No locust reports were received from these two districts in November.
- November rainfall totals varied from 10 mm to 65 mm in these two districts with high volume in the Riverland district, ranging from below average to very much 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 Primary Industries and Regions South Australia via the Exotic Plant Pest Hotline on 1800 084 881, online plant pest reporting form at https://form.jotform.co/70732909804864, 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 https://www.agriculture.gov.au/pests-diseases-weeds/locusts/landholders/reporting locusts or email at locust-report@agriculture.gov.au.

VICTORIA

MALLEE

Mildura and Swan Hill Rural Cities; Yarriambiack and Buloke Shires

Locusts and conditions

- No surveys were conducted in November in this district.
- No reports were received from this district in November.
- November rainfall totals were 25 to 65 mm over much of this district, ranging from above average to very much above 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 low probability of any significant migration events during summer.

Risks

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

WIMMERA

Hindmarsh and West Wimmera Shires

Locusts and conditions

- No surveys were conducted in November in this district.
- No locust reports were received from this district in November.
- November rainfall totals were 20 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 https://forms.bio.vic.gov.au/locusts, 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 https://www.agriculture.gov.au/pests-diseases-weeds/locusts/landholders/reporting_locusts, or emailed at locust.report@agriculture.gov.au.

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	Number per m ²			
Present	1	_	5		
Numerous	6	_	30		
Sub-band	31	_	80		
Band	81	_	500		
Dense Band	>500				

Adult Densities	Number p	er m²	!	Number pe	r 25 () m²
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: locust.report@agriculture.gov.au

Website: https://www.agriculture.gov.au/pests-diseases-

weeds/locusts/landholders/reporting_locusts