



Australian Government

Department of Agriculture, Fisheries and Forestry  
Australian Plague Locust Commission

January 2010

# Locust Bulletin

## GENERAL SITUATION IN DECEMBER AND OUTLOOK TO MID-FEBRUARY 2010

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### Australian plague locust

### *Chortoicetes terminifera*

A population increase occurred in Southwest Queensland in late November in association with heavy rainfall, leading to the formation of swarms by early December. Surveys in December identified a number of swarms with developed eggs in the Noccundra–Durham Downs–Mt Howitt area. At the start of January bands of mid-instar nymphs were identified in some locations in that area. Further heavy rainfall in late December will ensure favourable conditions for nymphal survival, but is restricting access for ground surveys. APLC aerial survey is being conducted to assess the extent of hopper bands in the region. The outlook is for a high density nymphal generation in parts of Bulloo and Quilpie Shires in Southwest Queensland, and an increase in adult numbers from mid-January. Some swarm formation is likely in from the middle of January, with a consequent risk of migration to northern South Australia and Far West New South Wales in February. Continued heavy rains in western Queensland in late December and January could lead to further egg laying in other areas of Southwest and Central West Queensland. A population increase from very low levels in parts of western New South Wales and northern South Australia is possible after widespread rains in late November and December produced suitable habitat conditions for locust breeding.

Swarm activity declined in Central West New South Wales during December. A number of swarms developed in the Parkes area in early December, but only medium density adults remained in the Coonamble area. The only area of high density hatching east of Coonamble did not produce hopper bands and only medium density nymphs remained in mid-December. The absence of high densities of second generation nymphs indicates a medium density population will be maintained in the region during January, but heavy rains in late December could initiate some breeding by residual adults. There was a low density adult population in the Far West and Northwest Plains of New South Wales and in most of the Far Southwest and Riverina in early December.

Locust density remained very low in northern South Australia in early December. There were medium density adults in the Hawker–Orroroo area of the southern Flinders Ranges, indicating some local breeding occurred in the area during spring.

The locust population level remained low in most of northern Victoria during December, but survey by the Department of Primary Industries in mid-December identified medium density adults in the Swan Hill–Chinkapook area of Northwest Victoria.

In Western Australia adult locust numbers peaked in the Southern Cross, Merredin and Lake Grace areas of the Central Agricultural region in November and declined to low densities during December.

7 January 2009

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

Surveys during December in western Queensland identified a widespread medium density population in Central West and Northwest Queensland. There were consistent counts of Numerous density adults, up to Concentration density in some locations, in the Longreach–Winton–Boulia area in early December. Widespread Isolated–Scattered density adults were found throughout Southwest Queensland and in part of the Far North of South Australia. There were continued reports of high numbers of locusts from Mt Isa during December. The light trap at Julia Creek caught high numbers of this species throughout December and at Longreach catches began after mid-December, reflecting migratory activity at the commencement of the breeding season. Isolated–Scattered density adults were detected in South Central Queensland and the Northwest Plains of New South Wales.

Noticeable numbers of this species were also reported from the Far North region of South Australia during December and the light trap at Dulkaninna recorded low numbers of this species on several nights.

Remaining swarms will disperse with the onset of the wet season in Northwest Queensland. The increase in numbers in northern South Australia and Southwest Queensland indicates migration of adults at the commencement of the breeding season. Egg laying will have commenced in December in Northwest, Southwest and Central West Queensland and also in the Central Highlands and nymphs are likely to appear during January. Breeding can continue throughout summer as adults can lay a number of times. Heavy rains in Queensland in late December and continued storms during January will provide suitable conditions for the survival of nymphs that emerged during December.

The population level in Northwest and Central West Queensland is higher than has occurred at this time of year in recent seasons and earlier swarm reports from the Mt Isa area and Queensland Gulf indicate a significant population in western Queensland. There have been no reports of increased population density in the Central Highlands.

**Migratory locust*****Locusta migratoria***

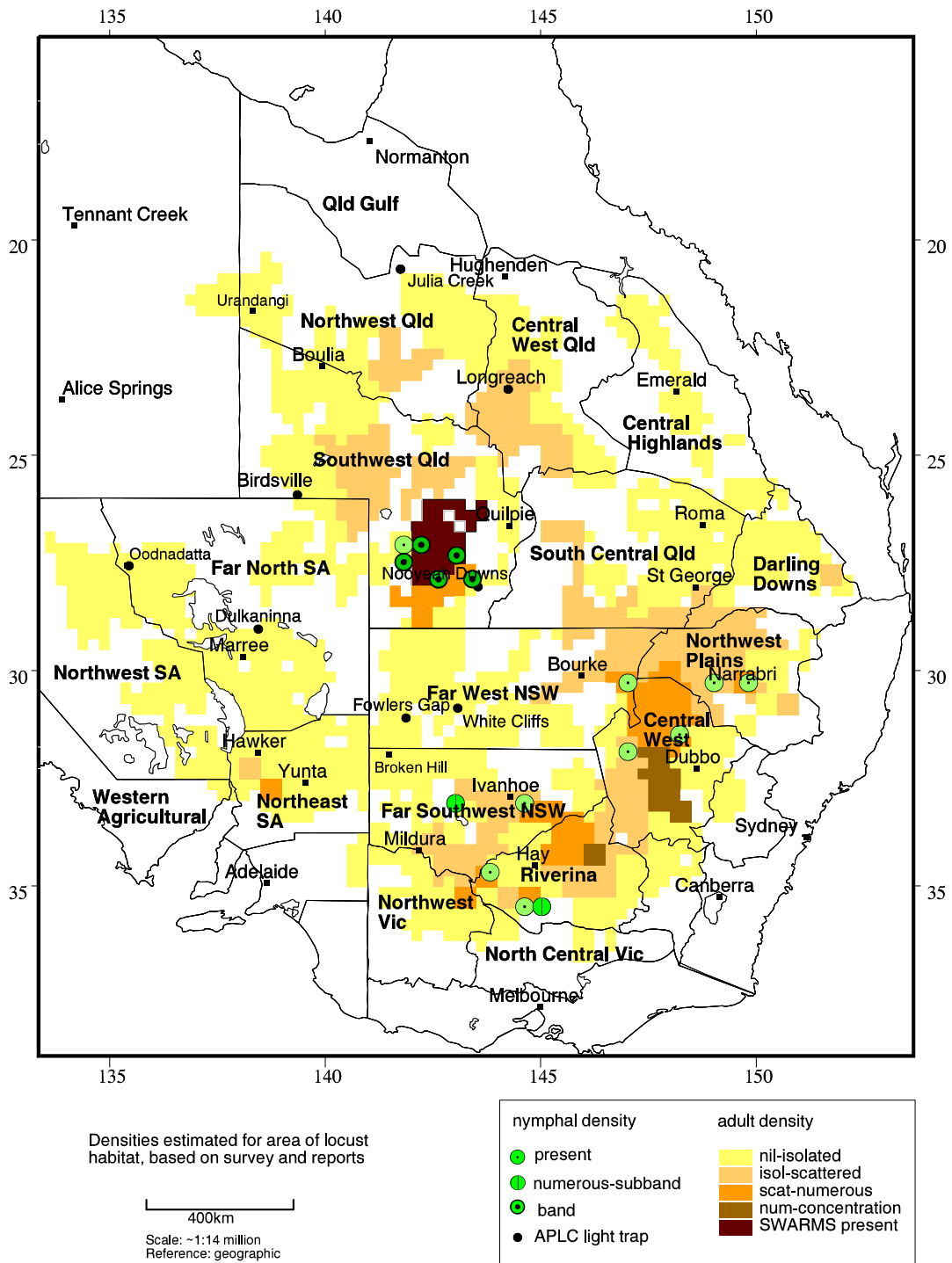
This species was not detected during APLC surveys in early December, but areas where the species commonly occurs were not surveyed. Biosecurity Queensland identified Isolated density adults in the Emerald–Capella area of the Central Highlands at the start of January. Summer rains in this region could result in aggregation, egg laying and the possibility of localised gregarious populations developing.

**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 can be made on 1800 635 962. An answering machine is attached for after-hours calls. Reports can also be e-mailed to APLC at [locust.report@daff.gov.au](mailto:locust.report@daff.gov.au) or sent through the web page at <http://www.daff.gov.au/aplc>.**

Locust distribution map

Australian Plague Locust Distribution

1 December to 31 December 2009



**Forecast hatching and development times for indicative locations.**

<b>Location - NSW</b>	<b>Egg laying</b>	<b>Hatching</b>	<b>Mid-instar</b>	<b>Fledging</b>
Nyngan-Condobolin	6 January	22 January	1 February	16 February
Balranald-Deniliquin	28 November	19 December	28 December	14 January
Peak Hill-Parkes	28 November	18 December	26 December	20 January
Broken Hill-Wentworth*	28 November	14 December	22 December	4 January
Narrabri-Moree	6 January	23 January	2 February	16 February
<b>Location - Qld</b>	<b>Egg laying</b>	<b>Hatching</b>	<b>Mid-instar</b>	<b>Fledging</b>
Birdsville-Thargomindah	29 November	15 December	23 December	7 January
Birdsville-Thargomindah#	10 December	25 December	4 January	17 January
Quilpie-Tambo*	6 January	20 January	28 January	12 February
<b>Location - SA</b>	<b>Egg laying</b>	<b>Hatching</b>	<b>Mid-instar</b>	<b>Fledging</b>
Hawker-Orroroo	28 November	18 December	28 December	6 January
Cooper-Pedy-Marree*	6 January	19 January	27 January	9 February

Forecast dates are based on development models for egg laying by known or possible adult populations and assume sufficient soil moisture for direct development. Dates are estimated from recorded and long term average temperatures. Dates indicate the start of the majority of the population entering the life stage. Expect variation around these dates as any actual egg laying will be different from the nominated dates and hatchings could extend for several weeks. \*No known significant population. # Extended egg laying.

**Australian plague locust*****Chortoicetes terminifera*****SITUATION FOR DECEMBER 2009 AND FORECAST TO MID-FEBRUARY 2010****NEW SOUTH WALES****CENTRAL WEST****Lachlan, Central West and Central North Livestock Health & Pest Authority****Locusts and conditions**

- The locust population continued to decline in the Central West and Lachlan LHPA areas during December. Adult numbers had fallen to Scattered–Numerous density in the Coonamble–Baradine and Collie–Warren areas by early December, but there were still several swarms in the Parkes–Peak Hill area. Nymphs of the second generation failed to develop at high densities at known egg laying locations and low density nymphs were identified at only a few other locations.
- Hatching of nymphs began on November 20 at a known dense egg bed between Coonamble and Baradine. Eggs sampled from the site showed at least 30% parasitism by the parasitic wasp *Scelio fulgidis*. Several small bands developed at the start of December, but nymph numbers declined to Numerous–Sub-band density in mid-December.
- Surveys in mid-December identified Scattered–Numerous density adults in the Central West LHPA and northern Lachlan LHPA areas. Only occasional late instar Present density nymphs were detected.
- Industry and Investment NSW received few reports from the Central West and Lachlan LHPA areas during December, reflecting the general population decline.
- There were no reports from Central North LHPA area, but mixed locusts and grasshoppers were reported from near Singleton in mid-December.
- There was heavy rainfall throughout the region and flood rains around Coonamble during the last week of December, which will produce a response in summer growing pastures.

**Forecast**

- Remaining nymphs from eggs laid in November will have fledged during December and will maintain a Scattered–Numerous density regional adult population.
- The decline in locust numbers is consistent with some emigration from the Coonamble area in mid-November, but the reason for low nymphal recruitment from eggs laid in November is unclear. Eggs at the only known swarm laying site east of Coonamble were subject to a high level of parasitism as well as periods of inundation. Vegetation and soils became dry in parts of the Central West during November and December, but were favourable in the southern Central West and Lachlan LHPA.
- The swarms in the Peak Hill–Parkes area in early December may have laid eggs in drainage areas where green vegetation persisted. Fledging of any resulting nymphs during January would maintain adult population levels in the region. There were also early instar nymphs in some locations around Peak Hill in late November, which would have fledged during December.
- An overall Scattered–Numerous density population is likely to be maintained in the Lachlan LHPA as a result of sporadic breeding by adults in November and December. Continued heavy rains and inundation in the Coonamble area could result in a continuing population decline in that part of Central West LHPA.
- Heavy rains at the end of December could initiate some breeding outside flooded areas by remaining adults in this region. If this occurs some nymphs could appear from mid-January.

**Risk(s)**

- There is a moderate probability of sporadic egg laying, particularly in the southern half of the region. If this occurs, a further adult generation could develop during February.

## **RIVERINA**

### **Riverina and Hume Livestock Health & Pest Authority**

#### **Locusts and conditions**

- Adult population density remained low in most parts of the Riverina during December. The localised swarms in the Binya–Barellan area north of Narrandera persisted but declined in density during December. Scattered–Numerous density adults and late instar nymphs were identified in the Balranald–Kyalite and Deniliquin areas in the southern Riverina area in early December.
- A report of Numerous density late instar nymphs was received from Barratta between Deniliquin and Moulamein in early January.
- There was moderate rainfall (20-40 mm) throughout the eastern Riverina and Hume LHPA areas in the last week of December. Pastures in other areas are mostly dry.

#### **Forecast**

- The Numerous density background population in the Deniliquin–Balranald area of the southern Riverina is the result of localised breeding in that area in late October. Nymphs reported from Barratta indicate further egg laying in early December and this may have been more widespread, considering the extent of heavy rains in the southern Riverina in late November.

#### **Risk(s)**

- There is moderate probability that egg laying in the southern Riverina in late November could produce an increase in adult population during January.

## **NORTHWEST SLOPES & PLAINS**

### **Northwest Livestock Health & Pest Authority**

#### **Locusts and conditions**

- Surveys in early December in the Moree and Walgett districts detected Isolated-Scattered density adults. There were Scattered–Numerous density adults and Present density mid and late instar nymphs in the Narrabri district.
- There were moderate rains (20-40 mm) in the Narrabri and part of the Moree district during 17–24 December and widespread heavy (>40 mm) rainfall throughout the region during the last week of the month.

#### **Forecast**

- The Numerous density adults and nymphs in the Narrabri district in early December indicate sporadic egg laying occurred in early November.
- Heavy regional rainfall in late December could trigger breeding in parts of the region, but given the low population level in December this would likely only result in a moderate population increase during January.

#### **Risk(s)**

- A small increase in population is likely to result from localised breeding in early January.

## **FAR WESTERN**

### **Darling and Western Livestock Health & Pest Authority**

#### **Locusts and conditions**

- Survey in December indicated a continued low density population in the Darling LHPA area. The Western LHPA area was not surveyed in this period.
- At the start of December there were Isolated–Scattered density adults in most parts of the Bourke and Brewarrina districts, but there were several counts of Numerous density adults around Bourke.
- No significant locust catches were recorded in the Fowlers Gap or White Cliffs light traps during December.
- There was moderate rainfall (20–40 mm) in the Tibooburra, Wanaaring and northern Broken Hill districts and heavy falls (>40 mm) in the Bourke and Brewarrina districts during the last week of December.

**Forecast**

- The migratory activity which resulted in an increased population in Southwest Qld is likely to have also increased locust numbers in the Tibooburra, Broken Hill and Wanaaring districts of Western LHPA, which also received rains in late November. Any egg laying in this area would have produced nymphs in December and fledging in mid-January could increase the adult population in these areas.
- The heavy rains at the end of December will produce suitable conditions for the survival of any nymphs and for further egg laying, which could result in a nymph generation from mid-January.

**Risk(s)**

- Some localised breeding may have occurred in the Tibooburra in early December and an increase in adult population is likely during January.
- There is a moderate risk of a population increase in late January and February as a result of immigration from Southwest Queensland. Further breeding would be dependent on rainfall at that time.

**FAR SOUTHWEST****Western Livestock Health & Pest Authority****Locusts and conditions**

- Surveys in early December indicated a low density population in most parts of the region, but possible egg laying in southern areas in late November could produce an increase in adult numbers during January.
- Surveys in early December detected localised Numerous density young adults and Present density fourth and fifth instar nymphs in the Menindee–Ivanhoe–Hillston area. There were Isolated–Scattered density adults in the Balranald area, but very few adults were detected between Wentworth and Broken Hill.
- There were light rains (<20 mm) in part of the Ivanhoe district during the last week of December. Vegetation conditions are becoming dry over most of this region.

**Forecast**

- Any egg laying following the heavy November rains would have produced nymphs from mid-December and these would fledge in January. A resulting increase in adult densities is possible.

**Risk(s)**

- There is a reduced likelihood of a population increase in this region during January as only low density adults were present in early December and vegetation conditions have deteriorated.

**All locust activity should be reported to your Livestock Health and Pest Authority or Primary Industries, Industry and Investment NSW. A toll-free call to the APLC can be made on 1800 635 962. An answering machine is attached for after-hours calls. Reports can be emailed to APLC at [locust.report@daff.gov.au](mailto:locust.report@daff.gov.au) or sent through the web page at <http://www.daff.gov.au/aplc>.**

<b>QUEENSLAND</b>
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**SOUTHWEST****Barcoo, Bulloo, Quilpie and Diamantina Shire****Locusts and conditions**

- Reports indicate that adult numbers increased in Bulloo Shire from mid-November. Swarms were reported in late November in the Jackson area, coincident with heavy storm rains throughout the region. A number of swarms formed in the Noccundra–Durham Downs–Mt Howitt area and laid eggs at the end of November and in early December. Many hopper Bands developed in this area in early January.
- APLC survey in mid-December identified a number of swarms and Numerous–Concentration density adults on the Wilson River floodplain between Noccundra and Durham Downs and also in the Plevna Downs and Mt Howitt area in western Quilpie Shire. There were Isolated–Scattered density adults in Diamantina and Barcoo Shires, and in the eastern half of Quilpie and Bulloo Shires.
- Survey at the start of January identified a number of small Bands at various nymph stages from second to fifth instar in the Noccundra–Durham Downs area. There were swarm density fledglings at one location on 6 January. APLC Aerial survey in early January identified a number of Bands up to 1 km in that area.
- The Nooyeah Downs and Birdsville light traps recorded no locusts during December.
- There were light falls in the Birdsville area during 17–23 December and widespread moderate–heavy (20–>40 mm) rainfall in Barcoo, Bulloo and Quilpie Shires during the last week of December. Vegetation which responded to November rainfall will remain green during January.

**Forecast**

- Analysis of wind trajectories during November indicate that wind convergence associated with trough activity in would have concentrated locusts from a wide area of western Qld in the Southwest. Wind trajectories and light trap catches also indicate that migrants from Central West NSW could have been transported to the Thargomindah–Jackson area during 11-15 November.
- The ages of nymphs identified at the start of January indicate that egg laying began in late November and continued in the first half of December. Fledging of nymphs will continue from the second week in January and continue throughout the month. A number of swarms are likely to form in the area from Thargomindah to Durham Downs from mid-January.
- Heavy rains in late December could initiate further egg laying in areas further to the east in Bulloo, Quilpie and Barcoo Shires in early January. This could produce early instar nymphs in the second half of January.
- Migration within western Qld or to adjacent parts of NSW or SA is possible from mid-January.

**Risk(s)**

- There is a high risk of swarms forming in the second half of January and February in Bulloo and Quilpie Shires.
- There is a moderate risk that further egg laying in the Eromanga–Quilpie area in early January could produce some Bands at the end of the month.

**CENTRAL WEST & NORTHWEST****Longreach, Barcaldine and Blackall-Tambo Regional Council. Boulia, Cloncurry, Flinders, McKinlay, Mt Isa, Richmond and Winton Shire****Locusts and conditions**

- Parts of the Longreach Regional Council area and Winton, Cloncurry and Boulia Shires were surveyed in early December. Population density remained low in these areas.
- There were Isolated–Scattered density adults in the Longreach and Winton areas. Only occasional Isolated density adults were detected in Boulia and Cloncurry Shires.
- No locusts of this species were caught in the Longreach or Julia Creek light trap during December.
- There were light rains in parts of the Longreach, Barcaldine and Blackall-Tambo Council areas during the second and third weeks of December. In the last week there was widespread heavy rainfall (>40 mm) throughout these regions. Vegetation was dry in the Longreach area at the start of December,

but was green in the Winton and Boulia Shires. Rains in late December will produce a vegetation response throughout these regions.

#### **Forecast**

- The low population level in the areas surveyed indicates that no significant breeding or immigration occurred in the Northwest before December. Any egg laying in December is likely to produce only a moderate population increase.
- The Blackall–Isisford area, where there had been a Scattered density population in November, was not surveyed. The rainfall in the southern Central West during December could result in further sporadic egg laying and a continued medium density population during January.

#### **Risk(s)**

- A moderate increase in population is possible from low density breeding in early January.
- There is a low risk that some migration from Southwest Qld could occur in late January.

### **CENTRAL HIGHLANDS**

#### **Central Highlands and Isaac Regional Council**

##### **Locusts and conditions**

- Survey was not conducted in this region during December and there were no reports of locust activity. Population density is expected to have remained low.
- There were patchy moderate–heavy (20–>40 mm) storm rains in the Central Highlands Regional Council area in this region during 8–16 and 17–23 December, and in Isaac Council area in the last week of December.

##### **Forecast**

- Given the very low population level in the region, even with some breeding in January there is unlikely to be a large increase in population.

##### **Risk(s)**

- No significant risks are identified during the forecast period.

### **SOUTH CENTRAL QUEENSLAND & DARLING DOWNS**

#### **Balonne, Murweh and Paroo Shire. Roma, Dalby and Goondiwindi Regional Council.**

##### **Locusts and conditions**

- Surveys in December identified a small increase in population density in Paroo Shire and continuing low densities in other areas.
- In early December there were consistent Isolated–Scattered density adults in Paroo, southern Murweh and Balonne Shires. No nymphs were detected on survey.
- There were moderate–heavy (20–40 mm) falls in Roma and part of Dalby Regional Council area and Balonne Shire during 17–23 December. There was heavy rainfall (>40 mm) throughout both regions during the last week of December.

##### **Forecast**

- Several rainfall events in these regions during December provided suitable conditions for locust breeding. Given the low density population in these regions, any egg laying during December is likely to produce a moderate population increase.

##### **Risk(s)**

- A moderate increase in population is likely in February, as a result sporadic local breeding.

**Locust activity should be reported to Biosecurity Queensland (Queensland Primary Industries & Fisheries). A toll free call to the APLC can be made on 1800 635 962. An answering machine is attached for after-hours calls. Reports can be emailed to APLC at [locust.report@daff.gov.au](mailto:locust.report@daff.gov.au) or sent through the web page at <http://www.daff.gov.au/aplc>.**

<b>SOUTH AUSTRALIA</b>
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**FAR NORTH, NORTHWEST, NORTHEAST & WESTERN AGRICULTURAL REGION****Locusts and conditions**

- Surveys during December indicated a very low population density in the Far North and Northwest regions and some low–medium density adults in the southern Flinders Ranges.
- The Dulkaninna and Oodnadatta light traps recorded no locust activity during December.
- There was moderate rainfall (20–40 mm) in the Northwest and parts of the Far North regions during the last week of December.

**Forecast**

- The Numerous density adults in the Hawker–Orroroo area indicate there was local breeding following spring rains. Further sporadic egg laying may have occurred in this area in early December, which could maintain a moderate level population during January.
- The widespread rains in late November may have initiated low density breeding in parts of the Northwest or Far North regions. However, the very low number of adults in early December indicates that no significant population increase was likely during December. Further heavy rains in parts of these regions in late December could also allow some low density breeding. Any eggs laid would hatch in mid-January and an increase in adult population density is likely during February.
- Some immigration to the Far North region from Southwest Qld is possible from mid-January to February.

**Risk(s)**

- A further population increase is possible in the southern Flinders Ranges area as a result of breeding by local populations.
- There is a moderate risk of immigration from Southwest Qld in late January and February. Immigrants to the Far North and Northeast regions could breed and lay eggs if there is moderate–heavy rainfall during February.

**Locust activity should be reported to Primary Industries & Resources SA (PIRSA) or to the Commission. A toll-free call to the APLC can be made on 1800 635 962. An answering machine is attached for after-hours calls. Reports can be emailed to APLC at [locust.report@daff.gov.au](mailto:locust.report@daff.gov.au) or sent through the web page at <http://www.daff.gov.au/aplc>.**

<b>VICTORIA</b>
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**NORTHWEST AND NORTH CENTRAL VICTORIA****Locusts and conditions**

- Surveys by DPI Victoria in the area west of Swan Hill in December identified Scattered–Numerous locusts in native pasture areas. Only occasional adults were found in the Echuca area.
- Several reports from North Central Victoria during December were identified as the small plague grasshopper, *Austroicetes cruciata*.
- There were light (<20 mm) rains in parts of Northwest Victoria in the first and second weeks of December.

**Forecast**

- Population level is expected to remain low in northern Victoria during January, but some low density breeding of the resident population in the Northwest could produce nymphs in late December.
- The increased population density in the Swan Hill area may have developed in the area from low density spring hatchings. There was a Numerous density adult population in adjacent areas of NSW during November, so it is possible that some immigration in late November contributed to the increase.

**Risk(s)**

- There is a low probability that egg laying in the Swan Hill area in early January could produce medium density nymphs in the second half of the month.

Locust activity should be reported to the Department of Primary Industries, Victoria on 1300 135559. A toll-free call to the APLC can be made on 1800 635 962. An answering machine is attached for after-hours calls. Reports can be emailed to APLC at [locust.report@daff.gov.au](mailto:locust.report@daff.gov.au) or sent through the web page at <http://www.daff.gov.au/aplc>.

<b>WESTERN AUSTRALIA</b>
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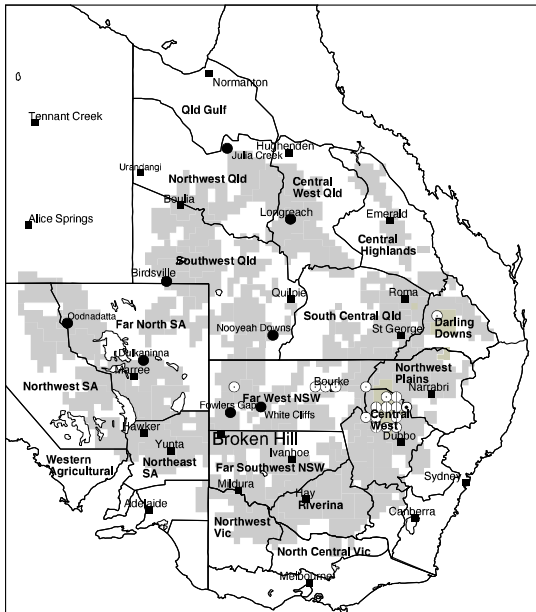
**CENTRAL AND SOUTHERN AGRICULTURAL REGIONS**

- Updates and details of the locust situation are available from the Western Australian Department of Agriculture and Food. The Department website has locust information pages at <http://www.agric.wa.gov.au>

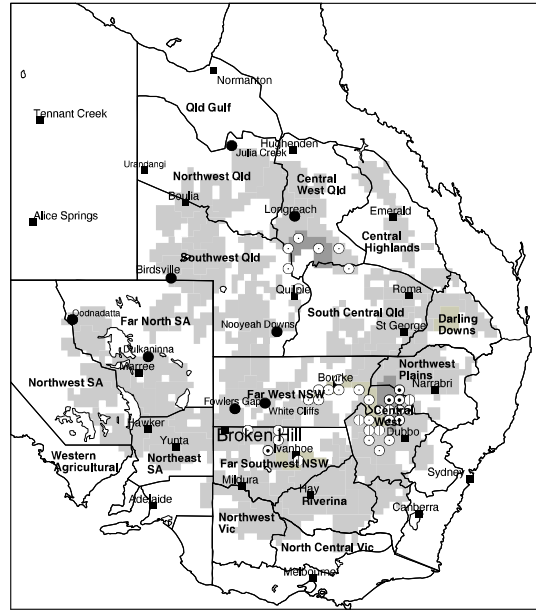
Previous distribution maps

Previous Australian Plague Locust Distributions

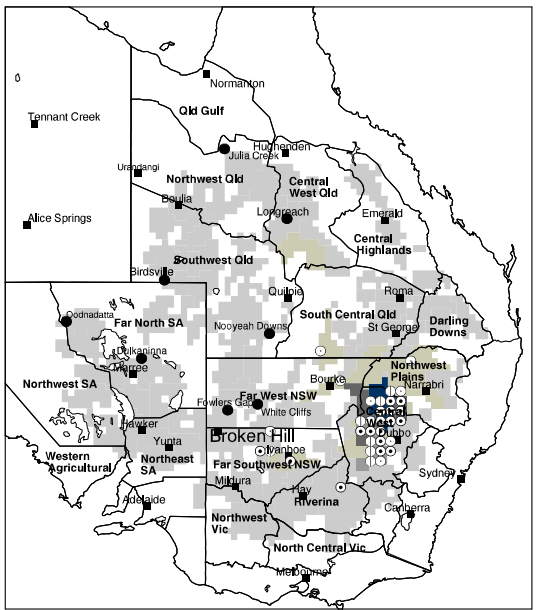
August 2009



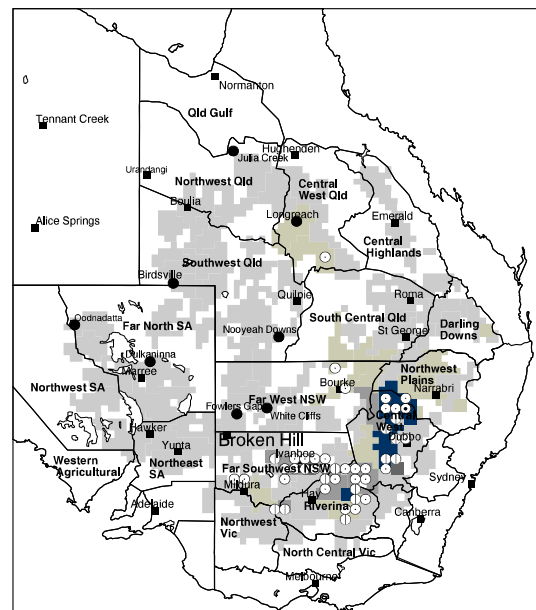
September 2009



October 2009



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Densities estimated for areas of locust habitat, based on survey and reports

nymphal density

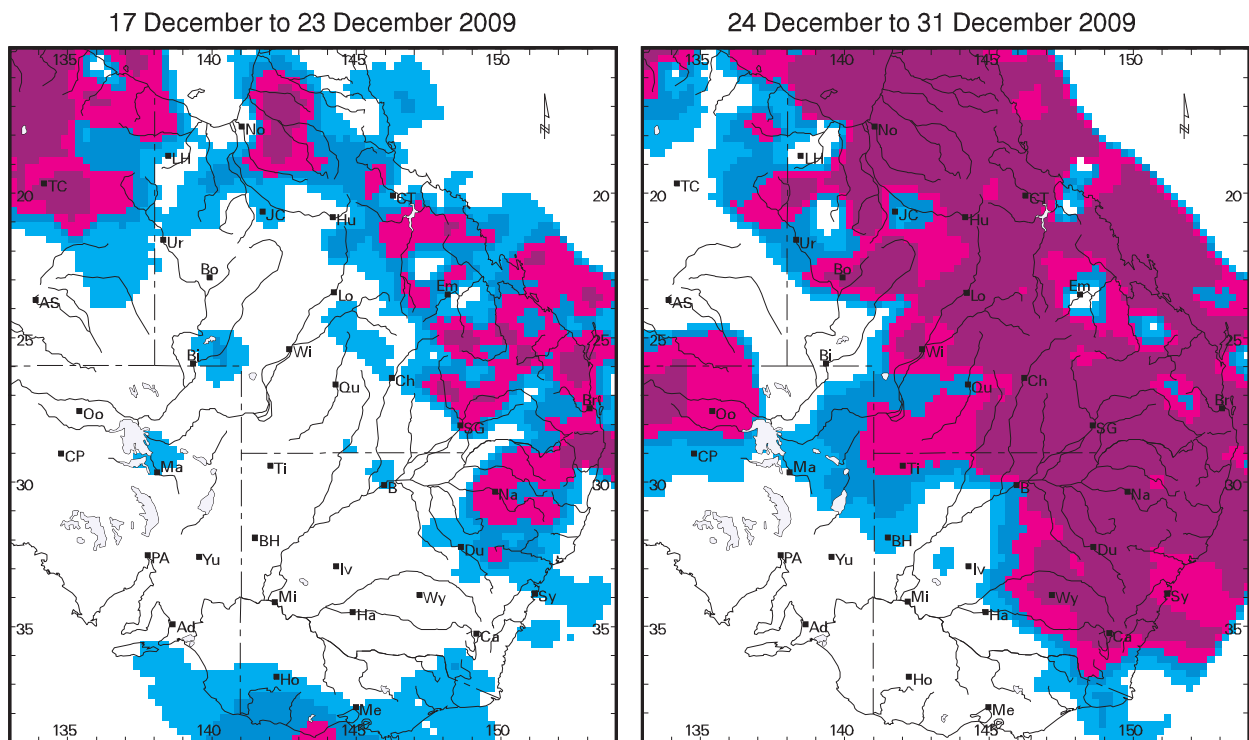
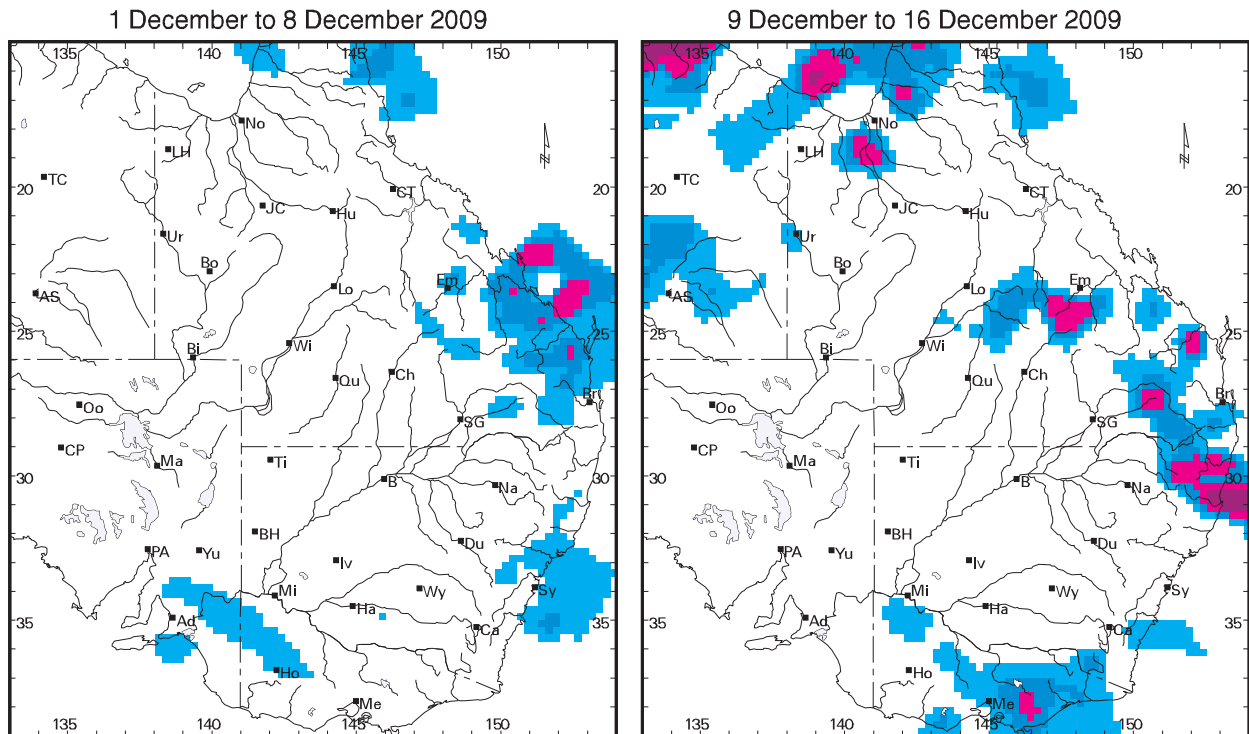
adult density

- present
- ⊙ numerous-subband
- ⦿ band

- nil-isolated
- isol-scattered
- scat-numerous
- num-concentration
- SWARMS present

Rainfall maps

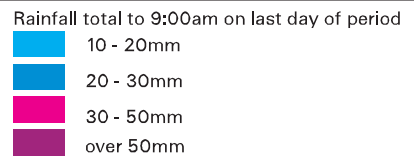
Rainfall Distribution



Shows major rainfall events during previous forecasting period

Source: Bureau of Meteorology- National Climate Centre (SILO)

Base: Geoscience Australia TOPO-10M Reference: geographic



## Place name key for rainfall distribution map

<b>Queensland</b>		<b>Northern Territory</b>		<b>New South Wales</b>	
Bo	Boulia	AS	Alice Springs	B	Bourke
Br	Brisbane	TC	Tennant Creek	BH	Broken Hill
Bi	Birdsville			Du	Dubbo
Ch	Charleville	<b>South Australia</b>		Ha	Hay
CT	Charters Towers	Ad	Adelaide	Iv	Ivanhoe
Em	Emerald	CP	Coober Pedy	Na	Narrabri
Hu	Hughenden	Ma	Marree	Sy	Sydney
JC	Julia Creek	Oo	Oodnadatta	Ti	Tibooburra
LH	Lawn Hill	PA	Port Augusta	Wy	West Wyalong
Lo	Longreach	Yu	Yunta		
No	Normanton				
Qu	Quilpie	<b>Victoria</b>		<b>Aust. Capital Territory</b>	
SG	St. George	Ho	Horsham	Ca	Canberra
Ur	Urandangi	Me	Melbourne		
Wi	Windorah	Mi	Mildura		

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

Where higher densities occur, a large proportion of the regional population is concentrated in 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		> 80

### Adult Densities

	Number per m <sup>2</sup>		Number per hectare
Isolated	-	0.02	< 200
Scattered	0.03	- 0.1	>200 – 1000
Numerous	0.2	- 0.5	>1000 – 5000
Concentration	0.6	- 3.0	>5000 – 30,000
Low Density Swarm	4.0	- 10	>30,000 – 100,000
Medium Density Swarm	11	- 50	>100,000 – 500,000
High Density Swarm	>	50	>500,000

### General density classes

very low, occasional  
low  
medium  
high

### Nymph densities

Nil-Present  
Present-Numerous  
Numerous-Sub-band  
Bands

### Adult densities

Nil-Isolated  
Isolated-Scattered  
Scattered-Numerous  
Concentration-Swarms

## Reporting locust infestations

It is important that all locust activity is reported as soon as possible to your nearest Department of Primary Industries office or to the Australian Plague Locust Commission.

State	Authority to report locust infestations to
New South Wales	Livestock Health & Pest Authority (LHPA) or Primary Industries, Industry and Investment NSW.
Queensland	Biosecurity Queensland (Primary Industries & Fisheries).
South Australia	Primary Industries & Resources South Australia (PIRSA) (Plant Health: 1300 666 010)
Victoria	Department of Primary Industries, Victoria.

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

Free call (Canberra): 1800 635 962 (24 hours)  
 Fax (Canberra): (02) 6272 5074  
 E-mail: locust.report@daff.gov.au  
 Internet: <http://www.daff.gov.au/aplc>