

DESERT LOCUST BULLETIN

FAO Emergency Centre for Locust Operations



No. 250
(6 August 1999)



General Situation during July 1999 Forecast until mid-September 1999

The Desert Locust situation remained calm during July. No gregarious Desert Locusts or large non-swarming populations were reported. The summer rains began in July but no significant developments are expected because locust numbers are very low. Locusts present in the summer breeding areas of the Sahel, the Sudan, northern Somalia and Yemen are expected to mature and breed on a small scale. Small numbers of Desert Locusts reported along the Indo-Pakistan frontier are maturing and limited breeding is expected.

Western Region. Significant rains fell in the summer breeding area of Mauritania and rainfall has probably occurred in northeastern Mali and northwestern Niger. Breeding conditions are improving in all these areas and small scale breeding may occur. Low numbers of adults were reported in Mauritania. No locusts were reported from any other country of the Region. No significant developments are expected.

Central Region. Breeding conditions are improving in Sudan, Eritrea, Ethiopia, Somalia and Yemen. Conditions remained dry in Egypt and Saudi Arabia. No breeding was reported during July; low numbers of adults were observed during survey carried out in Somalia and Sudan. Small scale breeding is expected to occur in these areas and in Yemen. No significant developments are expected.

Eastern Region. Maturing adults at low densities were found during the surveys throughout July in the summer breeding areas of Pakistan. Scattered adults were reported in India in the Barmer district of Rajasthan, where conditions were suitable for breeding. In Iran, where vegetation was dry, very low numbers of mature adults were seen near Chabahar (25N/60E) at the end of the month.



Weather & Ecological Conditions in July 1999

Summer rains started in July and conditions are expected to become suitable for breeding in the Sahel, the Sudan, northern Somalia, Yemen and vegetation is green in parts of northern Somalia and southern Mauritania. No satellite imagery is available after the first dekad of July to confirm that vegetation is becoming green in other summer breeding areas where it has rained.

In West Africa, the Inter-Tropical Convergence Zone (ITCZ) lay mainly between 15-20N during the month so that summer breeding areas were generally in a southwesterly airflow. Rains exceeding 20 mm were reported throughout July in the summer breeding area of Mauritania where annual vegetation was green or greening. Cold clouds were observed over northeastern Mali and northwestern Niger on several days in July and rain exceeding 20 mm was recorded on two days at Agadez. Consequently, conditions are likely to become suitable for breeding in these areas.

The FAO Desert Bulletin is issued monthly, supplemented by Updates during periods of increased Desert Locust activity, and is distributed by fax, e-mail, FAO pouch and airmail by the Locusts and Other Migratory Pests Group, AGP Division, FAO, 00100 Rome, Italy. It is also available on the Internet.

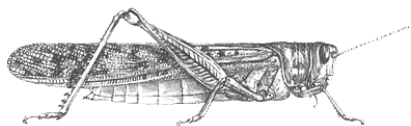
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In **North-West Africa**, hot dry weather was reported in Algeria and Morocco and vegetation was dry in both countries. Winds were mainly from the southwest in the Algerian Sahara and from the west and northwest over Morocco.

In **Eastern Africa**, the ITCZ lay between 15-20N during July and moderate to heavy rains were recorded in the summer breeding areas of the Sudan, western Eritrea, the Railway Area of Ethiopia and northern Somalia. Cold clouds that brought rain to Yemen in the first and second dekads of July extended over the southern Red Sea coast of Eritrea. Moderate to heavy rains fell in Darfur and Kassala Provinces of the Sudan. The Khor Baraka and Gash Rivers in Kassala that are important recession breeding areas started to flood in early July.

In the **Near East**, widespread rains fell from 9-15 July on the Tihama and in the interior summer breeding areas of Sada'a (17N/43E), Mareb (15N/45E), Shabwa (14N/46&47E) and the Hadhramaut 15N/48E). Falls were moderate to heavy except in the Hadhramaut where light rain (14 mm) was recorded at Sayoun. Cold clouds continued to occur over these areas in the third dekad but there is no confirmation from Yemen that rain fell. Vegetation in Sada'a was reported to be green but not dense before this rain. No details of vegetation are available from other areas but they are almost certainly becoming suitable for breeding. Vegetation along the southern coastal plain was dry in mid-July. In Saudi Arabia, light rains were recorded on 3 July in Taif (21N/45E), in Asir (18N/42E) On 10 July and in Jazan (16N/42E) on 15 July. Most of Saudi Arabia is dry and the few green areas are unsuitable for breeding. No rain was reported from Egypt and the area remained dry.

In **South-West Asia**, light and sparse rains fell during July in the summer breeding areas of Pakistan (Sukkur and Rahimyar Khan districts). In India, light rainfall occurred at a few places in the recession breeding area in Rajasthan during the first fortnight. Conditions are reported as suitable for breeding in India.



Area Treated

No control operations were reported during July for the third successive month.



Desert Locust Situation and Forecast

(see also the summary on the first page)

WEST AFRICA

Mauritania

• SITUATION

On 4 July, 17 immature adults were seen in an area of 2 ha north of Foug Gleita (1627N/1206W). No other locusts were reported during the month.

• FORECAST

Low numbers of solitary adults are likely to be present in central and southern areas where they will lay eggs now that the summer rains have begun. No significant developments are likely.

Mali

• SITUATION

No reports were received.

• FORECAST

Isolated locusts may be present in a few areas in the Adrar des Iforas. Small scale breeding could occur now that the summer rains have begun.

Niger

• SITUATION

No reports received.

• FORECAST

Isolated locusts may be present in a few areas in Tamesna and in Air. Small scale breeding could occur now that the summer rains have begun.

Chad

• SITUATION

No reports received.

• FORECAST

No significant developments are likely.

Senegal

• SITUATION

No locusts were reported in June.

No reports received

• FORECAST

No significant developments are likely.

Burkina Faso, Cape Verde, Gambia, Guinea Bissau, and Guinea Conakry

• FORECAST

No significant developments are likely.

NORTH-WEST AFRICA

Algeria

- **SITUATION**

No locusts were seen in July.

- **FORECAST**

No significant developments are likely.

Morocco

- **SITUATION**

No locusts were seen in July.

- **FORECAST**

No significant developments are likely.

Libyan Arab Jamahiriya

- **SITUATION**

No reports received in June or July.

- **FORECAST**

No significant developments are likely.

Tunisia

- **SITUATION**

No reports received.

- **FORECAST**

No significant developments are likely.

EASTERN AFRICA

Sudan

- **SITUATION**

Some solitary adults were observed during ground surveys carried out during July in the summer breeding areas of Northern Kordofan and Northern Darfur.

- **Forecast**

Low numbers of adults are likely to be present and breeding on a small scale in the summer breeding areas of Northern Darfur, Northern Kordofan, Kassala and Northern Provinces now that summer rains have begun. No significant developments are likely.

Eritrea

- **SITUATION**

No reports received.

- **FORECAST**

No significant developments are likely.

Somalia

- **SITUATION**

Low numbers of mature locusts were seen on 13 July at Xingalool (0946N/4818E) and low number of immature locusts were observed on 28 July in Wadi Darkaynle (1031N/4317E).

- **FORECAST**

Small scale breeding may occur in a few places on the escarpment between Boroma and Erigavo where summer rains have fallen.

Ethiopia

- **SITUATION**

No locusts were seen in early July near the border with Djibouti (11N/40 and 41E).

- **FORECAST**

A few adults may appear in the Railway Area and breed where heavy rains fell in June and July.

Djibouti

- **SITUATION**

No reports received.

- **FORECAST**

No significant developments are likely.

Kenya, Tanzania and Uganda

- **FORECAST**

No significant developments are likely.

NEAR EAST

Saudi Arabia

- **SITUATION**

No locusts were reported during July.

- **FORECAST**

No significant developments are likely.

Yemen

- **SITUATION**

No locusts were reported during July.

- **FORECAST**

Low numbers of adults are likely to be breeding on a small scale in the interior where rains were widespread in June and July.

Egypt

- **SITUATION**

No report received.

- **FORECAST**

No significant developments are likely.

Kuwait

- **SITUATION**

No locusts were reported during June.

- **FORECAST**

No significant developments are likely.

Oman

- **SITUATION**

No reports received.

- **FORECAST**

No significant developments are likely.

UAE

- **SITUATION**

No reports received.

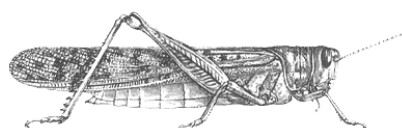
- **FORECAST**

No significant developments are likely.

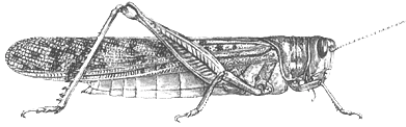
Bahrain, Iraq, Israel, Jordan, Qatar, Syria Arab Republic and Turkey

- **FORECAST**

No significant developments are likely.



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SOUTH-WEST ASIA

Iran

• **SITUATION**

No locusts were seen during surveys near Jask on 10-14 July. Very low numbers of mature adults were seen at two of four sites surveyed near Chabahar (25N/60E) on 25 July. Both areas were dry.

• **FORECAST**

No significant developments are likely.

Pakistan

• **SITUATION**

Isolated maturing adults at densities between 1- 15 per ha were found in Uthal, Mirpurkhas, Sukkur, Bahawalapur and Rahimyar Khan districts throughout July.

• **FORECAST**

Small scale breeding is likely to occur in the forecast period.

India

• **SITUATION**

Scattered locusts with a maximum density of 1.5 locusts per ha were seen in Rajasthan at five sites in Barmer District (25 & 26N/70E) in the first fortnight and at a density of 0.5 per ha at Singar (2714N/7337E) in Nagaur District in the second fortnight of July.

• **FORECAST**

Small scale breeding is likely to occur in the forecast period.

Afghanistan

• **SITUATION**

No reports received.

• **FORECAST**

No significant developments are likely.

In **Kazakhstan**, a report on 16 July said that locust swarms had settled on six to eight million ha of which 2 million had been treated. The total area of crops is 12 million ha and about 20 million ha are lying fallow. Some spectacular swarms invaded several cities (Astana, Pavlodar, Ust-Kamenogorsk) causing chaos to traffic. The Government has made US\$ 4.8 million available to purchase pesticides.

The impact of locusts on this year's grain harvest (expected to be between 9.0 and 11.0 million tonnes) is likely to be limited but the outbreak represents a serious threat for next year's harvest. The predicted harvest is higher than last year's which at 6.4 million tonnes was Kazakhstan's lowest for 30 years.

In **Russia**, locust damage to sunflower, pea and oats was reported in several regions of which Novosibirsk, Saratov, Tambov, Voronezh, and Samara were the most affected. The original estimate for the grain harvest of 70 million tonnes has been reduced to 58-60 million tonnes because of late frost, drought and locusts. In mid-July, US \$ 3.2 million (1.7 million for pesticide and 1.5 million for technical assistance) was allocated for locust control. By 19 July, farmers had treated about 600,000 ha of the 1.5 million ha infested. As in Kazakhstan, agriculture officers fear an even larger infestation next year.



Announcements

Locust reporting. Affected countries are kindly reminded to make sure that locust situation reports are sent to FAO HQ by the 25th day of the month so the information can be included in the FAO bulletin for the current month; otherwise, it will not appear until the following month. Reports should be sent even if no locusts were found or if no surveys were conducted.



Other Migratory Pests

Italian Locust, *Calliptamus italicus* outbreak in Central Asia. According to international press reports, an outbreak of the Italian Locust initially in dry areas of Kazakhstan has developed during June into a major upsurge affecting the Almaty area in the east and the Pavlodar district in the north of the country. At the end of June, swarms spread across the border into the southern regions of **Russia**. Later in July, it was reported that swarms reached **Uzbekistan** and **Kyrgyzstan**.



Glossary of terms

The following special terms are used in the Desert Locust Bulletin when reporting locusts:

NON-GREGARIOUS ADULTS AND HOPPERS

ISOLATED (FEW)

- very few present and no mutual reaction occurring;
- 0 - 1 adult/400 m foot transect (or less than 25/ha).

SCATTERED (SOME, LOW NUMBERS)

- enough present for mutual reaction to be possible but no ground or basking groups seen;
- 1 - 20 adults/400 m foot transect (or 25 - 500/ha).

GROUP

- forming ground or basking groups;
- 20+ adults/400 m foot transect (or 500+/ha).

ADULT SWARM AND HOPPER BAND SIZES

VERY SMALL

- swarm: less than 1 km² • band: 1 - 25 m²

SMALL

- swarm: 1 - 10 km² • band: 25 - 2,500 m²

MEDIUM

- swarm: 10 - 100 km² • band: 2,500 m² - 10 ha

LARGE

- swarm: 100 - 500 km² • band: 10 - 50 ha

VERY LARGE

- swarm: 500+ km² • band: 50+ ha

RAINFALL

LIGHT

- 1 - 20 mm of rainfall.

MODERATE

- 21 - 50 mm of rainfall.

HEAVY

- more than 50 mm of rainfall.

OTHER REPORTING TERMS

BREEDING

- the process of reproduction from copulation to fledging.

SUMMER RAINS AND BREEDING

- July - September/October

WINTER RAINS AND BREEDING

- October - January/February

SPRING RAINS AND BREEDING

- February - June/July

DECLINE

- a period characterised by breeding failure and/or successful control leading to the dissociation of swarming populations and the onset of recessions; can be regional or major.

OUTBREAK

- a marked increase in locust numbers due to concentration, multiplication and gregarisation which, unless checked, can lead to the formation of hopper bands and swarms.

UPSURGE

- a period following a recession marked initially by a very large increase in locust numbers and contemporaneous outbreaks followed by the production of two or more successive seasons of transient-to-gregarious breeding in complimentary seasonal breeding areas in the same or neighbouring Desert Locust regions.

PLAGUE

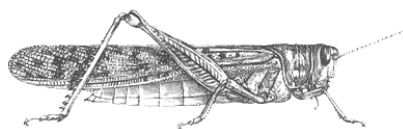
- a period of one or more years of widespread and heavy infestations, the majority of which occur as bands or swarms. A major plague exists when two or more regions are affected simultaneously.

RECESSION

- period without widespread and heavy infestations by swarms.

REMISSION

- period of deep recession marked by the complete absence of gregarious populations.



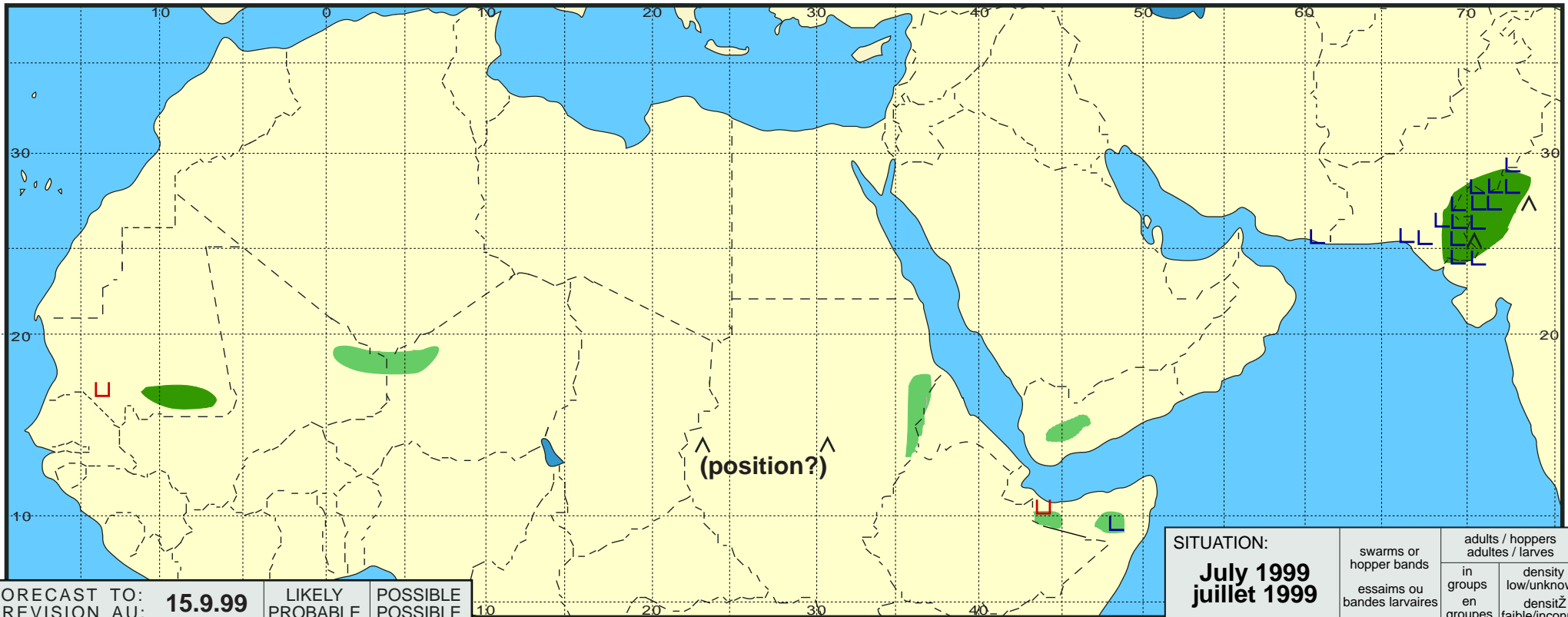
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Desert Locust Summary

Criquet pèlerin situation résumée

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FORECAST TO: PREVISION AU:	LIKELY PROBABLE	POSSIBLE POSSIBLE
15.9.99		
favourable breeding conditions conditions favorables à la reproduction		
major swarm(s) essaim(s) important(s)		
minor swarm(s) essaim(s) limité(s)		
non swarming adults adultes non essaimant		

SITUATION: July 1999 juillet 1999	swarms or hopper bands	adults / hoppers	
	essaims ou bandes larvaires	in groups en groupes	density low/unknown densité faible/inconnue

immature adults adultes immatures			
mature or partly mature adults adultes matures ou partiellement matures			
adults, maturity unknown adultes, maturité inconnue			
egg laying or eggs pontes ou œufs			
hoppers larves			
hoppers & adults (combined symbol example) larves et adultes (exemple symboles combinés)			