

DESERT LOCUST BULLETIN

FAO Emergency Centre for Locust Operations



No. 334

(2 August 2006)



General Situation during July 2006 Forecast until mid-September 2006

The Desert Locust situation remained calm during July. Small isolated populations of solitarious locusts were reported in the Sahel of West Africa in Mauritania, Mali and Niger and in Southwest Asia along the Indo-Pakistan border. As ecological conditions improve, small-scale breeding will occur in these areas during August and locust numbers are expected to increase slightly. In Northwest Africa, local breeding continued in central Algeria where control teams treated 244 ha in agricultural areas, and isolated adults were seen in northeast Morocco. In the Central Region, a few adults were present in northern Somalia and southern Egypt.

Western Region. Small-scale breeding continued in irrigated areas near Adrar, Algeria where solitarious hoppers and adults were treated. A few adults from spring populations persisted in northeast Morocco. During July, good rains fell in much of the summer breeding areas in the Sahel of West Africa. Solitarious adults were seen during surveys in the Tamesna and Air Mountains in Niger. Although no surveys were undertaken in the other countries, there were reports of isolated populations in southern Mauritania and northern Mali. Small-scale breeding may already have commenced in some places in the three countries and will continue during the forecast period, giving rising to hoppers and adults that should remain solitarious. Surveys should be undertaken on a regular basis in these areas throughout the summer.

Central Region. During July, isolated solitarious adults persisted in agricultural areas in southern Egypt and a few adults were seen during surveys in northern Somalia. Although no locusts were reported in the summer breeding areas in Sudan and western Eritrea, low numbers of adults are almost certainly present and small-scale breeding is expected to occur during August and September. Isolated adults may also be present in a few places along the Red Sea coast in Eritrea and Yemen as well as in the interior of Yemen where small-scale breeding could take place in areas of recent rainfall. Surveys should be conducted regularly in all three countries throughout the summer.

Eastern Region. Isolated solitarious adults have been present in parts of the summer breeding areas in Pakistan near the Indo-Pakistan border since the second half of June. No locusts were reported in adjacent areas of Rajasthan, India where rainfall associated with this year's monsoon has been poor so far. Nevertheless, small-scale breeding is expected to occur in both countries during the forecast period.

The FAO Desert Bulletin is issued monthly, supplemented by Updates during periods of increased Desert Locust activity, and is distributed by 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.

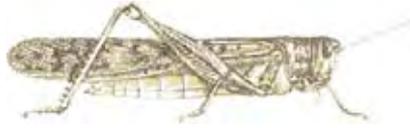
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No. 334

DESERT LOCUST BULLETIN



Weather & Ecological Conditions in July 2006

Ecological conditions improved in the summer breeding areas in the Sahel of West Africa and Sudan because of good rainfall in most areas during July. Sporadic showers occurred along parts of the Red Sea coast. Breeding conditions were improving along the Indo-Pakistan border where monsoon rains fell, mainly in Pakistan.

In the **Western Region**, the Inter-Tropical Convergence Zone (ITCZ) continued its seasonal movement northwards during July, reaching 20N over Mauritania and occasionally as far north as 24N over Mali. Consequently, light to moderate showers fell in the summer breeding areas in the northern Sahel where ecological conditions were already improving from earlier rains: in southern Mauritania (as far north as 19N), in northern Mali (west of Kidal, near Tessalit and in the Tamesna), in southern Tamesna in Niger between Tahoua and Agadez, and in eastern Chad between Abeche and Fada. Heavier rains fell in southwest Mauritania between Boutilimit and Kiffa and in the southeast from Nema to Tombouctou, Mali, including the Mauritania/Mali border as far north as 2030N. Light rain may have also fallen in northern Mauritania between Ouadane and El Hank. In southern Algeria, moderate rain (29 mm) fell in the southern parts of Tamanrasset and Adrar regions from 24 to 27 July. Nevertheless, ecological conditions remained dry throughout the central and southern Algerian Sahara except in irrigated areas near Adrar.

In the **Central Region**, the ITZC continued to move progressively northwards during July, reaching Atbara, Sudan by the end of the month. As a result, light to moderate rains fell as far north as 16N in West and North Darfur, and North Kordofan. Heavy rains were reported at El Obeid. Similar showers fell in eastern Sudan between Kassala and Derudeb, extending to the western lowlands in Eritrea. In northwest Somalia, light rain fell on the plateau between Boroma and Burao. In Yemen, light to heavy rain fell in parts of the summer breeding area in the interior near Marib, Shabwah and Hadhramaut. On the Red Sea coastal plains, light to moderate showers occurred between Al Mukha, Yemen and Jizan, Saudi Arabia. During the

first decade of the month, unusually heavy rain fell on the northern coast in Eritrea at Mehimet (86 mm) that caused local flooding.

In the **Eastern Region**, light to moderate rain associated with the seasonal monsoon fell mostly in the summer breeding areas in Pakistan in the Tharparkar Desert as far north as Rohri during July. Less rain fell in adjacent areas in Rajasthan, India where it was concentrated mainly on the border west of Jaisalmer and Barmer. Light rain also fell in coastal and interior areas in Baluchistan, western Pakistan.



Area Treated

Algeria 244 ha (12-26 July)



Desert Locust Situation and Forecast

(see also the summary on page 1)

WESTERN REGION

Mauritania

• SITUATION

No surveys were carried out and no locusts were reported from 21 June to 20 July. There were reports of isolated solitary mature adults during the third decade of July in parts of Inchiri, Assaba and the two Hodhs.

• FORECAST

Scattered adults are almost certainly present in parts of the south and small-scale breeding is likely to be in progress in areas of recent rainfall, mainly in Hodh Ech Chargui, Trarza, northern Brakna, western Tagant and southwest Adrar. Consequently, locust numbers are expected to increase slightly. Locusts may also be present in Hodh El Gharbi and in southern Inchiri where less rainfall has occurred.

Mali

• SITUATION

Although surveys were not carried out during July, there were reports of isolated solitary adults at two places in the Adrar des Iforas near Kidal (1827N/0125E).

• FORECAST

Scattered adults are likely to be present and breeding on a small scale in a few places in Timetrine, Tilemsi Valley, Adrar des Iforas and Tamesna. Locusts

may also be present in areas of recent rainfall between Tombouctou and Araouane.

Niger

• SITUATION

During surveys carried out from 12 July onwards, isolated immature and mature solitarious adults were seen at one place in the eastern Air Mountains, at two places southwest of Agadez (1700N/0756E), and at one location southeast of Agadez. No locusts were seen elsewhere on the Tamesna Plains or in the Air Mountains.

• FORECAST

Small-scale breeding will occur in areas of recent rainfall, mainly in the southern part of Tamesna, while additional rains are required north of In Abangharit before breeding is likely to take place. Limited breeding could also occur in parts of the western Air Mountains. Consequently, locust numbers are expected to increase slightly during the forecast period.

Chad

• SITUATION

A late report indicated that no surveys were carried out and no locusts were reported in June.

• FORECAST

Isolated adults may be present in a few places in the east and centre of the country and breed on a small scale in areas of recent rainfall.

Senegal

• SITUATION

No locusts were reported during July.

• FORECAST

No significant developments are likely.

Benin, Burkina Faso, Cameroon, Cape Verde, Côte d'Ivoire, Gambia, Ghana, Guinea Bissau, Guinea, Liberia, Nigeria, Sierra Leone and Togo

• FORECAST

No significant developments are likely.

Algeria

• SITUATION

During July, small infestations of solitarious fourth to sixth instar hoppers mixed with solitarious immature and mature adults persisted in nearly a dozen agricultural areas near Adrar (2753N/0017W) at densities of up to 1,000 locusts/ha, covering a total area of 244 ha. A few adults were seen copulating. Ground control teams treated 244 ha.

• FORECAST

Small-scale breeding may continue in irrigated areas near Adrar but locust numbers are expected to remain low. Isolated adults may be present in a few

other places of the central and southern Sahara where rains fell recently.

Morocco

• SITUATION

During July, isolated immature solitarious adults were seen on the 12th in the northeast near Figuig at Boujrad (3206N/0308W).

• FORECAST

No significant developments are likely.

Libyan Arab Jamahiriya

• SITUATION

No locusts were reported during July.

• FORECAST

Scattered locusts may be present near Ghat and perhaps in a few places in the Al Hamada Al Hamra. No significant developments are likely.

Tunisia

• SITUATION

No surveys were carried out and no locusts were reported during July.

• FORECAST

No significant developments are likely.

CENTRAL REGION

Sudan

• SITUATION

During the second half of July, no locusts were seen during surveys carried out in the summer breeding areas in North Kordofan between En Nahud (1246N/2828E), Sodiri (1423N/2906E) and the Nile River as well as in Khartoum and White Nile states. No reports were received from Darfur.

• FORECAST

Scattered adults are likely to be present in a few places in the summer breeding areas in Kordofan and Darfur and, perhaps to a lesser extent, near Kassala. Small-scale breeding is expected to occur in areas of rainfall causing locust numbers to increase gradually.

Eritrea

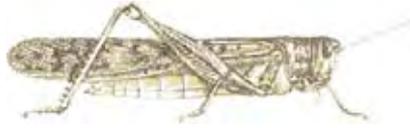
• SITUATION

No locusts were seen during a survey carried out on the Red Sea coastal plains between Massawa and the Sudanese border from 12 to 17 July where heavy rains fell earlier in the month.



No. 334

DESERT LOCUST BULLETIN



No. 334

DESERT LOCUST BULLETIN

• **FORECAST**

Isolated adults may be present in parts of the western lowlands and breed on a limited scale if rainfall occurs. A few adults could appear in areas of recent rainfall on the Red Sea coast near Mehimet.

Ethiopia

• **SITUATION**

No surveys were carried out and no locusts were reported during July.

• **FORECAST**

No significant developments are likely.

Djibouti

• **SITUATION**

No reports were received during July.

• **FORECAST**

No significant developments are likely.

Somalia

• **SITUATION**

Isolated immature and mature adults were seen on the plateau near Burao (0931N/4533E) during a survey carried out on 22-28 July.

• **FORECAST**

Scattered adults may persist in a few places along the escarpment and on the plateau between Boroma and Burao.

Egypt

• **SITUATION**

During July, isolated immature adults were present in the Western Desert in two farms at Sh. Oweinat (2219N/2845E), at Darb Al-Arbain (2357N/3018E) oasis, near Lake Nasser at Tushka (2247N/3126E) and Abu Simbel (2219N/3138E), and in the Red Sea Hills northeast of Aswan (2405N/3256E).

• **FORECAST**

Low numbers of locusts may persist in agricultural areas in parts of the Western Desert. No significant developments are likely.

Saudi Arabia

• **SITUATION**

During July, no locusts were seen during surveys carried out along the Red Sea coastal plains near Jeddah and further south near the Yemeni border. No locusts were seen in the interior near Buraydah

(2620N/4359E) or in the extreme north near Jordan.

• **FORECAST**

No significant developments are likely.

Yemen

• **SITUATION**

No surveys were carried out during July.

• **FORECAST**

Isolated adults may be present in the summer breeding areas in the interior between Marib and Shabwah in areas where rainfall occurs. Similar infestations could also be present in a few places on the coastal plains of the Red Sea and Gulf of Aden.

Oman

• **SITUATION**

No locusts were seen during surveys carried out in July on the Musandam Peninsula.

• **FORECAST**

No significant developments are likely.

Bahrain, Iraq, Israel, Jordan, Kenya, Kuwait, Lebanon, Palestine, Qatar, Syria, Tanzania, Turkey, UAE and Uganda

• **FORECAST**

No significant developments are likely.

EASTERN REGION

Iran

• **SITUATION**

No reports were received during July.

• **FORECAST**

No significant developments are likely.

Pakistan

• **SITUATION**

During the second half of June, isolated mature adults were seen at two locations in the summer breeding area in Khipro Desert southwest of Rohri (2739N/6857E).

During the first half of July, scattered mature adults were seen at 8 places in Khipro and Cholistan deserts.

• **FORECAST**

Small-scale breeding is expected to occur in areas of recent rainfall between Tharparkar and Cholistan, causing locust numbers to increase slightly.

India

• **SITUATION**

No locusts were reported during the second half of June and first half of July.

• **FORECAST**

Small-scale breeding is expected to occur in areas of recent rainfall in Rajasthan, mainly near the Pakistani border and along the Rajasthan Canal, causing locust numbers to increase slightly.

Afghanistan

• SITUATION

No reports received.

• FORECAST

No significant developments are likely.



Announcements

Locust reporting. During locust outbreaks, upsurges and plagues, RAMSES output files with a brief interpretation should be sent twice/week and affected countries are encouraged to prepare decadal bulletins summarizing the situation. During recession periods, countries should report at least once/month and send RAMSES data with a brief interpretation. All information should be sent by e-mail to the FAO/ECLO Desert Locust Information Service (eclo@fao.org). Information received by the end of the month will be included in the FAO Desert Locust 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.

eLocust2. FAO has developed a new version of eLocust in collaboration with affected countries and the French Space Agency (CNES/Novacom) that allows field officers to enter survey and control data directly in the field and transmit it in real time via satellite to their national locust centre. Data can also be downloaded to a PC and visualized on GoogleEarth. The software is in both English and French. FAO DLIS has distributed units to nearly all of the frontline countries so that they can become operational this summer. Photos and more information are available at: www.fao.org/ag/locusts/en/activ/DLIS/index.html

Desert Locust warning levels. DLIS is experimenting with a colour-coded scheme to indicate the seriousness of the current Desert Locust situation: green for *calm*, yellow for *caution* and red for *danger*. The scheme has been applied to the Locust Watch web page and to the monthly bulletin's header. The levels indicate the perceived risk or threat of current Desert Locust infestations to crops and appropriate actions are suggested for each level. Your feedback on the usefulness of this scheme and any suggested improvements is welcome.

CNLA Mauritania. The Government of Mauritania has recently approved the establishment of an autonomous National Anti-Locust Centre (Centre National de Lutte Antiacridienne, CNLA), which has its

own budget and decision-making authority. Their web site is: www.claa.mr. Other countries are encouraged to follow the example of Mauritania.

EMPRES/CRC website. Detailed information on EMPRES/CR and the FAO Central Region Commission as well as member country profiles can be found on the new EMPRES/CRC website at: www.crc-empres.org.

New information on Locust Watch. New material is available on the Locust Group's web page, Locust Watch (www.fao.org/ag/locusts):

- Report of the 2006 Iran/Pakistan Joint Border Survey (English) – Publications section
- Fighting the Locusts ... Safely brochure (French and Arabic) – Publications section
- Report of the 25th Session of the Central Region Commission (English and Arabic) – Publications section

DLCC documentation. The working documents for the 38th Session of the Desert Locust Control Committee (DLCC) will be posted on LocustWatch web page (www.fao.org/ag/locusts) as they become available in English, French and Arabic. Please check the page on a regular basis.

2006 events. The following meetings are tentatively scheduled:

- **DLCC.** 38th Session, Rome, 11-15 September
- **EMPRES/CR.** 14th Liaison Officer Meeting, Muscat (Oman), 11-15 November
- **SWAC.** 25th Session, Tehran (Iran), 20-23 November
- **EMPRES/WR and CLCPRO.** 5th EMPRES Liaison Officer Meeting and 2nd Session CLCPRO, Nouakchott (Mauritania), December



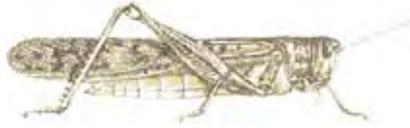
Glossary of terms

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



No. 334

DESERT LOCUST BULLETIN



No. 334

DESERT LOCUST BULLETIN

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.

WARNING LEVELS

GREEN

- Calm. No threat to crops. Maintain regular surveys and monitoring.

YELLOW

- Caution. Potential threat to crops. Increased vigilance is required; control operations may be needed.

RED

- Danger. Significant threat to crops. Intensive survey and control operations must be undertaken.

REGIONS

WESTERN

- locust-affected countries in West and North-West Africa: Algeria, Chad, Libya, Mali, Mauritania, Morocco, Niger, Senegal, Tunisia; during plagues only: Burkino Faso, Cape Verde, Gambia, Guinea and Guinea-Bissau.

CENTRAL

- locust-affected countries along the Red Sea: Djibouti, Egypt, Eritrea, Ethiopia, Oman, Saudi Arabia, Somalia, Sudan, Yemen; during plagues only: Bahrain, Iraq, Israel, Jordan, Kenya, Kuwait, Qatar, Syria, Tanzania, Turkey, UAE and Uganda.

EASTERN

- locust-affected countries in South-West Asia: Afghanistan, India, Iran and Pakistan.

