

DESERT LOCUST BULLETIN

FAO Emergency Centre for Locust Operations



No. 272
(4 June 2001)



General Situation during May 2001 Forecast until mid-July 2001

The Desert Locust situation continued to remain calm during May. A few solitary adults were present in southern Egypt, north-western Somalia and in the spring breeding areas of western Pakistan. Limited breeding could occur at the end of the forecast period in the areas which received rains during May or when the rainy season start. No significant developments are expected in the recession area.

Western Region. No locusts were reported in the Region. Locust numbers are thought to be at an extremely low level, though habitat conditions are likely to be acceptable for survival in Adrar des Iforas, Mali, and in Tamesna, Niger, and remained suitable for breeding in north-western Libya. No significant developments are expected during the forecast period.

Central Region. Insignificant numbers of solitary adults persisted at several places in south-eastern **Egypt** between the Red Sea coast and Lake Nasser. Low number of hoppers and adults were reported in north-western **Somalia** where conditions improved during May. No locusts were reported elsewhere in the Region and no significant developments are expected during the forecast period.

Eastern Region. Low numbers of solitary adults were present in interior areas of Baluchistan in western **Pakistan**, where the conditions were reported to be dry during the month. The scale of the adult movement to the summer breeding areas along the Indo-Pakistan border is expected to be extremely small this year with, at most, only a few individual adults appearing by the onset of the monsoon rains. No locusts were reported in **Iran** or **India**.

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.

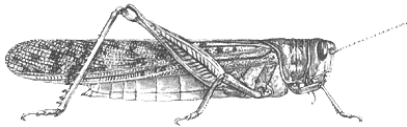
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Weather & Ecological Conditions in May 2001

Dry weather prevailed in most locust areas during May. Conditions were generally dry and remained unfavourable for breeding except in northern Somalia and western India where light to moderate rains fell during the month.

In **West Africa**, the Inter-Tropical Convergence Zone (ITCZ) was located around 15°N during the month, reaching 20° on 28th May, and moving southwards on 7th, 14th and 30th May. As a result, only light rains were reported in some areas of the northern Sahelian belt, in Mauritania, Mali and Niger. In Mauritania, moderate to locally strong easterly to north-easterly winds prevailed during the first half of May. North to north-easterly prevailing winds were weak to moderate during the second half. Temperatures increased and the maximum varied between 23 and 35°C. Annual vegetation is now totally dry in the northern part of the country. In northern Niger, light rains were reported from eastern Aïr (6 and 8 May) and the Ighazer area (12 May), and an aerial survey on 24 May indicated that patches of green vegetation were present in Tamesna. Elsewhere in the Region, dry and unfavourable conditions persisted except in northern Mali where patches of drying vegetation may still be present.

In **North-West Africa**, as a result of depressions located over the Mediterranean basin, light rain fell over Tunisia on 5-12 May and again on 23-26 May. In Morocco, traces were reported from two locations on the Atlantic coast, and light rain occurred on the eastern side of the Atlas Mountains. Traces and light rain were reported in Western and Central Sahara and in the Hoggar Mountains, in Algeria, where temperatures continued to increase during the month. Maximum temperatures reached 41°C in the Central Sahara and minimum temperatures varied from 9 to 26°C over the Algerian Sahara as a whole. Prevailing winds were light over the southern part of the country. It was reported that conditions were unfavourable for any locust activity in the traditional breeding areas. Traces were reported over north-western Libya where the vegetation remained green and an heavy rain (70 mm)

fell in the south-east, at Kufra, on 27 May. Except for north-western Libya, conditions remained unsuitable for breeding in the Region.

In **Eastern Africa**, light rains fell in the summer breeding areas of Sudan south of 15°N, in North Kordofan and West Darfur, during the last dekad of May. An heavy rain was reported on the Red Sea coast, in the Suakin area. In Somalia, light to moderate rains fell during the first two dekads of May over the north-west where a low to moderate cover of green vegetation was reported after mid-May surveys. During the same period, light to moderate rains were also reported from Dire Dawa, Ethiopia, where suitable conditions may persist. In Djibouti, light rains were reported around the capital on 5 May. Conditions started to improve in some parts of the summer breeding area of the Region during the month.

In the **Near East**, green vegetation was reported in the southern Red Sea coast of Egypt. Light rains fell for the third consecutive month in the interior of Saudi Arabia. Nevertheless, dry conditions, unsuitable for any locust activity, are reported, because temperature have increased. Traces to light rain were reported in the Asir Mountains, in the South, where the vegetation is locally green. In Yemen, moderate to heavy rains fell over some places in the interior of Marib and Shabwah during the first dekad of May and green vegetation was reported near Harib. Moderate rains fell over southern parts of the Tihama during mid-May. Light rains were also reported in Oman and Qatar. Consequently, conditions are slowly improving in the Region.

In **South-West Asia**, south-westerly prevailing winds were established by mid-May. Moderate rain was reported in Baluchistan, in Iran. In Pakistan, only isolated showers fell over the summer breeding areas. Consequently, the conditions deteriorated during the month in the spring breeding area. In India, light rain was reported throughout the month in Rajasthan, at Jaisalmer, Jodhpur, Bikaner and Jaipur. Breeding conditions were improving in the summer breeding areas as confirmed by surveys carried out during the second half of April and during May.



Area Treated

No control operations were reported.



Desert Locust Situation and Forecast

(see also the summary on the first page)

WEST AFRICA

Mauritania

• **SITUATION**

No locust was reported in May.

• **FORECAST**

The adult groups observed mid-April north of Aïoun as well as scattered populations may move towards the summer breeding areas in the south. They are expected to mature and lay at the end of the forecast period with the onset of the rainy season. It is likely that the first generation of breeding will be difficult to detect due to the low numbers and dispersed nature of the parental population.

Mali

• **SITUATION**

No reports received.

• **FORECAST**

Low numbers of adults are likely to be present and will persist in a few areas of Timetrine and the Adrar des Iforas. Limited breeding could start in these areas at the end of the forecast period if rainfall occurs.

Niger

• **SITUATION**

No locust was reported during the month.

• **FORECAST**

A few isolated adults may be present in parts of Air and Tamesna where conditions are suitable for survival and locally improving. Limited breeding is expected to commence in the Tamesna with the onset of the summer rains. No significant developments are expected.

Chad

• **SITUATION**

No reports received.

• **FORECAST**

No significant developments are likely.

Senegal

• **SITUATION**

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 reported during May.

• **FORECAST**

No significant developments are expected during the forecast period.

Morocco

• **SITUATION**

No reports received.

• **FORECAST**

No significant developments are expected during the forecast period.

Libyan Arab Jamahiriya

• **SITUATION**

No reports received.

• **FORECAST**

Breeding and hopper development can pursue under suitable conditions in the north-west, near Nalut. No significant developments are likely.

Tunisia

• **SITUATION**

No reports received.

• **FORECAST**

No significant developments are likely.

EASTERN AFRICA

Sudan

• **SITUATION**

No locusts were reported.

• **FORECAST**

Breeding may occur on a limited scale during the forecast period in areas of recent rainfall in Northern Kordofan. No significant developments are likely.

Eritrea

• **SITUATION**

No reports received.

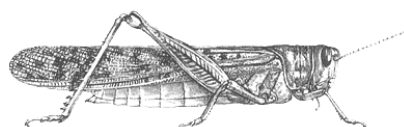
• **FORECAST**

No significant developments are likely.

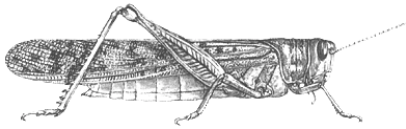
Somalia

• **SITUATION**

Isolated immature adults were seen at Hosweyne (1023N/4322E) and at Sanaag (0945N/4521E), and 5th instar isolated hoppers were found at Biji (1018N/



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4403E) during a ground survey carried out on 14-19 May. The densities were of 25 to 100 adults per ha and 1 hopper per square meter.

• **FORECAST**

Small scale summer breeding may start on the escarpment where the conditions improved during the month.

Ethiopia

• **SITUATION**

No reports received.

• **FORECAST**

No significant developments are likely.

Djibouti

• **SITUATION**

No locusts were reported.

• **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 surveys carried out in the first half of May in the Interior, in the Asir mountains and near Mecca, where a few adults were present last month.

• **FORECAST**

Adult movements are expected to be restricted along the southern Red Sea coast due to the low locust number present and increasing temperatures in the spring breeding areas.

Yemen

• **SITUATION**

No locust was reported in May.

• **FORECAST**

A few adults may appear in the southern part of the Tihama where conditions recently improved. No significant developments are likely.

Egypt

• **SITUATION**

On 20 May, isolated immature adults, at a density of 2 adults per ha, were reported at seven locations on the Red Sea coastal plains and in adjacent subcoastal areas south and west of Halaib (2212N/3635E). Similar populations were observed at four locations in cultivated areas around Lake Nasser.

• **FORECAST**

Locusts may persist in the areas of green vegetation along the Red Sea coastal plains as well as in the cultivated areas. No significant developments are likely.

Kuwait

• **SITUATION**

No reports received.

• **FORECAST**

No significant developments are likely.

Oman

• **SITUATION**

No locust was reported in May.

• **FORECAST**

No significant developments are likely.

United Arab Emirates

• **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.

SOUTH-WEST ASIA

Iran

• **SITUATION**

No reports received.

• **FORECAST**

No significant developments are likely.

Pakistan

• **SITUATION**

A late report indicates that no locusts were observed during survey carried out the second half of April along the Iran border. During the first half of May, a few solitary mature adults at densities varying from 1 to 3 per ha, were observed at four locations in eastern Baluchistan in the Karachi (2542N/6637E and 2535N/6640E) and Quetta (2705N/6605E and 2819N/6507E) regions.

• **FORECAST**

The populations still present in Baluchistan could breed on a limited scale in the remaining patches of green vegetation but will more likely move towards the summer breeding areas along the Indo-Pakistan border. In any case, the scale of the events will be extremely low with, at most, only a few individual adults appearing by the onset of the monsoon rains.

India

• **SITUATION**

No locusts were reported during surveys carried out in Rajasthan during the second half of April and from 1st to 23 May.

• **FORECAST**

A few isolated adults are likely to appear in Rajasthan where the conditions recently improved and lay on a small scale with the onset of the monsoon rains. No significant developments are likely.

Afghanistan

• **SITUATION**

No reports received.

• **FORECAST**

No significant developments are likely.



Other Locust species

Madagascar

Based on the results of the survey carried out in mid-April in the south-western coastal plains, an emergency FAO project was prepared and became operational in May. On 23-26 May, more than 30,000 ha of late instar hoppers and adults of Malagasy Migratory Locust (*Locusta migratoria capito*) were successfully treated under the supervision of an FAO consultant and with the full involvement of the National Anti-Locust Centre (CNA). In the five treated sites, the average locust densities were of 2 hoppers/m² and 5,000 adults/ha. The balance of *transiens* populations varied from 60 to 90%. 24 hours after the treatment, 75 to 90% of the hoppers were dead or dying and 20 to 70% of the adults were dead. The mortality reached 90 to 100% for the hoppers and 90 to 95% for the adults 72 hours after treatment. The locust situation is now under control in the south-western part of Madagascar and the treatments were stopped.



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.

Reporting by email. Affected countries are encouraged to send completed *FAO Desert Locust Survey and Control Forms* with a brief interpretation of the results by email to eclo@fao.org.

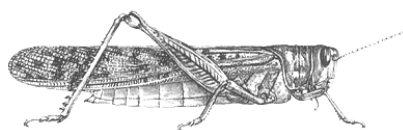
NW Africa Regional Workshop. Pictures from a CLCPANO training workshop on locust survey and control recently held in Ghadames, Libya are available on the internet:

<http://www.fao.org/news/global/locusts/clcpano/0103lib/0103lib.htm>

Khartoum University. The Graduate College of the University of Khartoum is offering a one year post-graduate diploma course in Desert Locust Control which is expected to start in August 2001. Applications should be sent during May to: Registrar of the Graduate College, University of Khartoum, P.O. Box 321, Khartoum, Sudan.

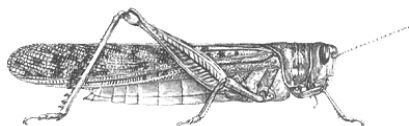
Desert Locust Control Committee. The 36th Session will be held in Rome from 24-28 September 2001. It has been noted that this occasion will fall on the 50th Anniversary of FAO's official involvement in Desert Locust management. In 1951, an Advisory Committee on Locust Control was established by a decision taken at the Sixth FAO Conference.

Pesticide Referee Group. The 9th meeting will be held during the last quarter of 2001. Results of any field trials recently undertaken on the efficiency and human/environmental safety of control agents used against locusts and grasshoppers should be submitted as soon as possible to the Locust Group for transmission to the PRG.



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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

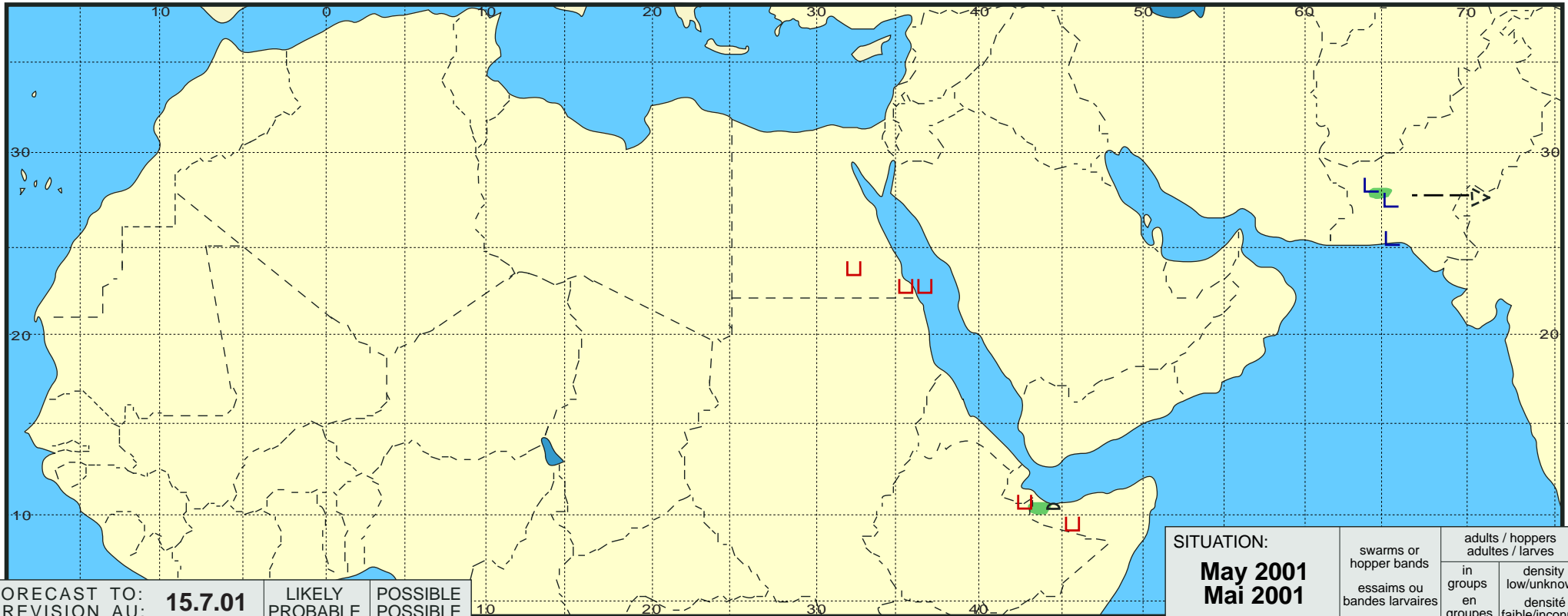
- period of deep recession marked by the complete absence of gregarious populations.



Desert Locust Summary

Criquet pèlerin - Situation résumée

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FORECAST TO: PREVISION AU:	15.7.01	LIKELY PROBABLE	POSSIBLE POSSIBLE
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: May 2001 Mai 2001	swarms or hopper bands essaims ou bandes larvaires	adults / hoppers adultes / larves	
		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)			