

DESERT LOCUST BULLETIN

FAO Emergency Centre for Locust Operations



No. 256
(4 February 2000)



General Situation during January 2000 Forecast until mid-March 2000

In West and North-West Africa, the Desert Locust situation needs careful vigilance. Mature highly dispersed populations are widespread over huge areas of upgreening vegetation in the extreme north-west of Mauritania where winter breeding is under way. In Mali and Niger, populations may be regrouped in patches of green vegetation. On the Red Sea coast, where low numbers of locusts were reported in Sudan, small-scale winter breeding may be going on. Elsewhere, the situation remains calm.

Western Region. During January, winter breeding came to an end in north-western **Mauritania** and continued in the extreme north-west where the vegetation is developing. Groups of hoppers and immature adults were controlled over 104 ha in the north-west. Only a few locusts were reported in **Morocco** during January. In **Algeria**, scattered adults were reported from the Tindouf area and the Hoggar Mountains during December and no locusts were seen during January. No reports were received from Mali and Niger for January. New information for December reports that, in northern **Mali**, 1,705 ha were treated against groups of hoppers and adults on 12-17 December. In

Niger, locust populations at densities varying from 100 to 10,000/ha were seen in south-eastern Air on 21-28 December. Immature adults at maximum density of 100 adults/ha were observed in Tamesna from 20 December to 5 January. Due to the low temperatures, locust development will slow down during the forecast period. Only local movements between northern Mauritania and southern Morocco and between northern Mali and southern Algeria are expected before the end of the forecast period.

Central Region. In **Sudan**, mature adults and young hoppers were present in parts of the coastal plains during the first fortnight of January. No locusts were seen in **Eritrea** in late December. No locusts were seen in **Egypt** and **Saudi Arabia** in January. Small-scale breeding will continue in the coastal areas of these countries.

Eastern Region. No locusts were seen during surveys carried out in **Pakistan** and **India** in January. No significant developments are expected in this Region 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 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.

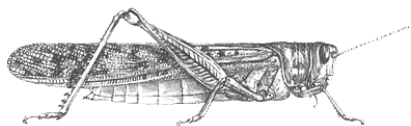
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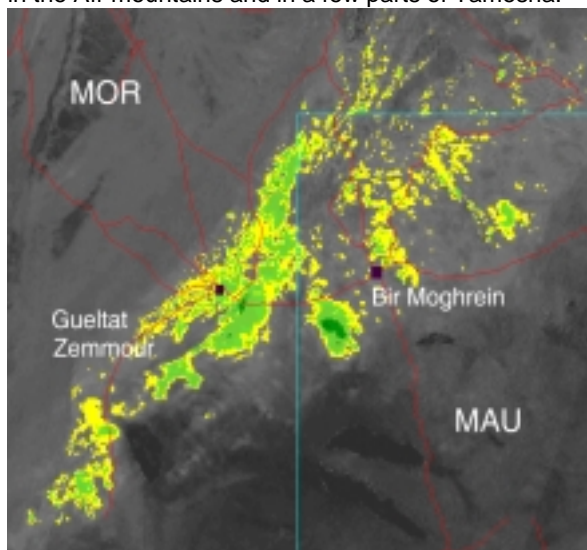
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Weather & Ecological Conditions in January 2000

Light to moderate rains fell over northern Mauritania where vegetation was drying out in the north-west and developing in the extreme north-west. Apart from south-east Morocco where ecological conditions are suitable, elsewhere in West and North-West Africa, conditions were only suitable for Desert Locust survival. On the Red Sea coastal plains, conditions were locally suitable for breeding. Dry conditions still prevailed in the winter breeding areas of South-West Asia.

In **West Africa**, light to moderate rains fell over northern Mauritania during the third dekad of January (27mm at Nouadhibou on 27/01; 10mm at Zouerate on 28/01). Satellite imagery for the second dekad of January suggested that vegetation was slowly drying out in Dakhlet Nouadhibou, and increasingly green over larger areas in Tiris Zemmour between 24-25N and 10-11W and the Moroccan border. The low temperatures will slow down locust development. Imagery suggested that only a few patches of vegetation persisted in the Timetrine area of north-eastern Mali. The main wadis of the Adrar remained green and vegetation was extending to the north across the Algerian border. In northern Niger, imagery suggested that green vegetation was still present in most wadis in the Air mountains and in a few parts of Tamesna.



Satellite imagery suggests that there is a further extension of the green area in Tiris Zemmour, north Bir Moghreïn, Mauritania, compared with December 1999. [Source: SPOT VEG, 11-20 January 2000].

In **North-West Africa**, light rains fell over northern Sahara and the Hoggar Mountains (13mm at Djanet) in Algeria during the second dekad of January. In Morocco, light rains were recorded in the south during the second dekad (7.5mm at Tan Tan). Satellite imagery suggests that the vegetation already present in the interior of the Saharan Provinces near Gueltat Zemmour (between 24-26N and 12W) was still developing and extending to the east into northern Mauritania. The presence of a medium to dense cover of green vegetation in the Gueltat Zemmour area was confirmed by a specific survey on 16 January.

In **Eastern Africa**, light to moderate rains were only reported from Egypt, north to 26N, and at Geneina, in Sudan (72mm during the third dekad). Satellite imagery suggested that vegetation was developing south of the Tokar Delta and further north, along the Red Sea coast, from Tokar to Port Sudan where good rains fell during the second fortnight of December. In Eritrea, an aerial survey at the end of December indicated that natural vegetation was greening on the coastal plains, from Massawa to Wadi Teclai. Further north up to the Sudanese border, satellite imagery suggested that vegetation was well developed on the coastal plain. In Egypt, imagery suggested that vegetation was slowly developing in the south-east, which received rains in late December.

In the **Near East**, light to moderate rains fell over northern, central and eastern Saudi Arabia throughout the month. Satellite imagery suggested that vegetation was developing on the coastal plains, from Al Lith to the Yemeni border, and in the interior between 2430-28N and 4130-45E. Ecological conditions along the coastal plains and in the interior are expected to be suitable for breeding. In Yemen, imagery indicated that vegetation was drying out along the coastal plains of the Red Sea and the Gulf of Aden.

In **South-West Asia**, light to moderate rains were recorded in parts of the locust winter breeding areas in Pakistan. Elsewhere in the region, dry conditions persisted.



Area Treated

Mauritania	104 ha (1-31 Jan)
Mali	1,705 ha (12-17 Dec).



Desert Locust Situation and Forecast

(see also the summary on the first page)

WEST AFRICA

Mauritania

• SITUATION

During January, breeding was coming to an end in Dakhlet Nouadhibou where decreasing numbers of late instar hoppers, fledglings and immature adults were seen. A maximum density of 12,000 adults/ha was reported during the first dekad and this decreased to 250 adults/ha during the second. At the end of the month, only isolated mature adults at low densities were seen in the patches of green vegetation. A total of 104 ha were sprayed in the Taziaset area (2036N/1526W). In North Trarza and Tiris Zemmour, locust breeding at low densities continued on huge areas. Isolated maturing and mature adults were observed at maximum densities of 1,300 adults/ha during the month. An increasing part of the mature population, reaching 30 to 60% during the third dekad, was copulating. Unconfirmed movements of swarms as well as two adults groups and hoppers were reported at El Atiyat (2530N/1110W) during the first dekad. Early hopper instars were seen at two sites during the second dekad. Movements of solitarious mature populations were observed during the third dekad.

• FORECAST

In the north-west, further breeding is not expected as the vegetation is drying out and the soil is dry. Fledging will come to an end and the immature adults are expected to persist and slowly mature in the remaining patches of green vegetation or to move further north where vegetation is developing. Breeding of sparse populations will continue in the extreme north-west but the development will be slowed down by the low temperatures which may also limit movements into adjacent areas and countries.

Mali

• SITUATION

A late report indicates that third to sixth instar hopper groups and immature and mature adult groups were present at seven nearby sites in the Timetrine area (19N/00W) from 12 to 17 December 1999. The hopper densities varied from 1,000 to 150,000/ha and the adult densities from 40 to 70,000/ha. The hopper populations consisted of individuals of all phases: solitarious, transiens and gregarious. One female was observed laying. During this period, 1,705 ha were treated out of 2,575 ha infested.

• FORECAST

Locusts escaping control will concentrate in the remaining green areas of Adrar or move further north into southern Algeria during periods of warm southerly winds. No further local development is expected during the forecast period.

Niger

• SITUATION

Late reports indicate that adult populations were present in south-eastern Air from 21 to 28 December 1999. The densities varied from 500 to 10,000 adults/ha over areas of 25 to 2,000 ha. The highest density was seen in the Tagora wadi (1802N/0919E). Scattered adults were also observed in Tamesna from 20 December 1999 to 5 January 2000 at densities not exceeding 100 adults/ha.

• FORECAST

Locusts are expected to concentrate in the remaining green patches of vegetation of Tamesna and along the wadis and in the cultivated areas in the Air Mountains.

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.

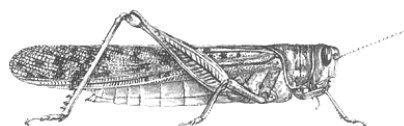
NORTH-WEST AFRICA

Algeria

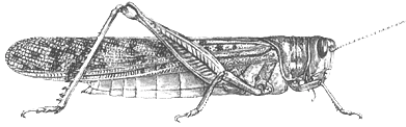
• SITUATION

A late report indicates that scattered adults were present in December in the Tindouf area (2742N/0810W) and in the south-western Hoggar (2240N/0434E).

No locusts were reported in January.



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• FORECAST

Low numbers of adults may be present and persist in the south. These may be supplemented by locusts arriving from northern Mali during the forecast period.

Morocco

• SITUATION

No locusts were seen on 16 January in the Gueltat Zemmour area (2436N/1246W) where a medium to dense cover of green vegetation was slowly developing. Only three solitary adults were reported on 17 January between Zag (2801N/0920W) and El Mahbas (2725N/0910W).

• FORECAST

No significant developments are likely.

Libyan Arab Jamahiriya

• SITUATION

No locusts were reported in January.

• FORECAST

No significant developments are likely.

Tunisia

• SITUATION

No reports received.

• FORECAST

No significant developments are likely.

EASTERN AFRICA

Sudan

• SITUATION

During the second fortnight of December, solitary copulating adults at maximum densities of 400 adults/ha were reported from the coastal plain, between Suakin and the Tokar Delta. In the same area, 1,200 ha were infested by solitary copulating adults during the first fortnight of January. 1st to 3rd instar hoppers were present on 4 ha.

• FORECAST

Winter breeding will continue south of the Tokar Delta and further north, along the Red Sea coast, from Tokar to Port Sudan. In view of the low number of locusts, gregarization is unlikely during the forecast period.

Eritrea

• SITUATION

A late report indicates that no locusts were seen during ground and aerial surveys along the Red Sea coast, from Massawa to Wadi Teclai, in December 1999.

• FORECAST

Small-scale breeding may be in progress along the Red Sea coastal plains from Massawa to the Sudanese border.

Somalia

• SITUATION

No reports received.

• FORECAST

Low numbers of adults are likely to be present in a few places of the coastal areas in the extreme north-west and in the north-east. Small-scale breeding is expected in these areas.

Ethiopia

• SITUATION

No reports received.

• FORECAST

No significant developments are likely.

Djibouti

• SITUATION

No reports received.

• FORECAST

Low numbers of adults may be present and breed on a small scale on the southern coastal plains..

Kenya, Tanzania and Uganda

• FORECAST

No significant developments are likely.

NEAR EAST

Saudi Arabia

• SITUATION

No locusts were reported during extensive survey carried from Jeddah (2139N/3910E) to the Yemeni border (1624N/4245E) during January. No locusts were reported during intensive surveys along the Red Sea coastal plains, mainly in the Qunfidah district (1925N/4103E), from 17 to 24 January.

• FORECAST

Locusts are likely to be present and to breed along the Red Sea coastal plains between Qunfidah and the Yemeni border. Numbers are likely to increase during the forecast period.

Yemen

• SITUATION

No reports received.

• FORECAST

Low numbers of adults are likely to be present and to have started breeding on the Red Sea coastal plains.

Egypt

• SITUATION

No locusts were reported in the extreme south-east on 20 and 24 January and in the Safaga area (2645N/3355E) on 20 January where heavy rain occurred on 20 December and 4 January.

• FORECAST

Locusts are likely to be present and persist in the south-east.

Kuwait

• SITUATION

No reports received in January.

• FORECAST

No significant developments are likely.

Oman

• SITUATION

No reports received in December and January.

• FORECAST

Scattered locusts may be present on the Batinah coast north of Muscat.

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 in January.

• FORECAST

No significant developments are likely.

Pakistan

• SITUATION

No locusts were reported during January.

• FORECAST

Scattered locusts may be present in the coastal areas of Baluchistan. No significant developments are likely.

India

• SITUATION

No locusts were seen during surveys in January.

• FORECAST

No significant developments are likely.

Afghanistan

• SITUATION

No reports received.

• FORECAST

No significant developments are likely.



Announcements

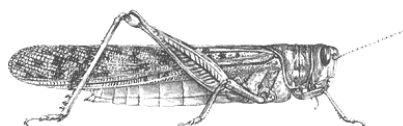
Locust reporting. Affected countries are kindly reminded to make sure that locust situation reports are sent to FAO HQ by the 25th day of the month so the information can be included in the FAO bulletin for the current month; otherwise, it will not appear until the following month. Reports should be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

Reporting by email. Affected countries are encouraged to send completed FAO Locust Survey Forms with a brief interpretation of the results by email to eclo@fao.org. Please do not send this information to individual staff at FAO HQ.

FAO Commission for Controlling the Desert Locust in South-West Asia. The 22nd session of the Commission and the 13th session of the Executive Committee to be held in Tehran, I.R. Iran, in January 2000 has been postponed. The revised dates will be announced shortly.

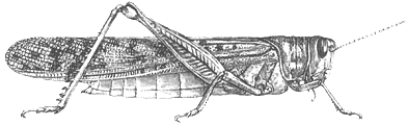
Western Region. A technical and legal consultation on the restructuring of bodies responsible for Desert Locust management in Western and North-Western Africa to be held in Rabat, Morocco, in March 2000, has been postponed to April. The precise date will be announced shortly.

EMPRES (Central Region). The planning workshop for Phase II will be held in Cairo, Egypt, on 26-30 March 2000.



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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:	15.3.00	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: January 2000 Janvier 2000	swarms or hopper bands	adults / hoppers adultes / larves	
	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 hoppers			
hoppers & adults (combined symbol example) larves et adultes (exemple symboles combinés)			