

DESERT LOCUST BULLETIN

FAO Emergency Centre for Locust Operations



No. 257
(6 March 2000)



General Situation during February 2000 Forecast until mid-April 2000

In West and North-West Africa, the Desert Locust situation continues to need careful vigilance. Breeding of scattered populations continued in northern Mauritania and involved groups in the extreme North, where favourable conditions for laying developed at the end of the month. In Niger, and probably in Mali, locust populations were still present in the mountainous areas of Adrar des Iforas and Aïr. On the Red Sea coast, small-scale winter breeding was going on. Elsewhere, the situation remained calm.

Western Region. During February, locally dense locust populations bred in the extreme north-west of Mauritania where 221 ha of groups of copulating and laying adults were treated during the third dekad. Elsewhere in northern Mauritania, scattered mature populations at densities not exceeding 120 adults/ha were observed. In Tagant, slow maturation of scattered persisting adults started by the end of the month. In Niger, immature adults populations mixed with late instar hoppers were reported from south-eastern Aïr where 700 ha were sprayed. No reports were received from Mali. A late report from Chad indicates that 8 ha of dense Desert Locust populations were treated on 27 November 1999 in the Fada area.

In Morocco, small groups were seen in the far South. In Algeria, no locusts were reported in February. In Libya, isolated immature adults were reported from the South-West and the South-East. Breeding will continue in north-western Mauritania during the forecast period. No significant developments are likely elsewhere in the Western Region.

Central Region. In Sudan, scattered mature adults and late instar solitary hoppers were present in the southern part of the Red Sea coastal plains during February. Only isolated mature adults were seen in south-east Egypt on 28-29 February. Isolated immature adults were present in a few places on the western coastal plains of Somalia. No locusts were seen in Ethiopia and Saudi Arabia during February. Small-scale breeding will continue locally in the coastal areas of these countries. Late reports indicated that no locusts were present in Kuwait and Oman during January.

Eastern Region. No locusts were seen during surveys carried out in Pakistan and India in February. 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.

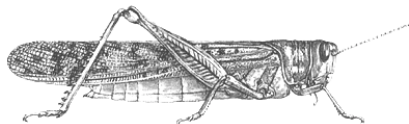
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Weather & Ecological Conditions in February 2000

Light to moderate rains fell locally over West Africa and the Sahara during February. Conditions were favourable for breeding in north-western Mauritania and remained suitable only for Desert Locust survival elsewhere in the Western Region. On the Red Sea coastal plains, conditions continued to be locally suitable for breeding. Breeding conditions are expected to improve in Baluchistan, Pakistan.

In **West Africa**, light rains fell over south-western Mauritania up to Atar, and at Bilma, in Niger. Satellite imagery for the first dekad of February suggested that vegetation was locally drying out in north-western Tiris Zemmour, Mauritania, and is appearing further north, inside Morocco. Ground teams indicated that conditions were suitable for breeding in Tiris Zemmour. In Mali, satellite imagery suggested that Adrar des Iforas still provided suitable survival biotopes for Desert Locust and that vegetation continued to develop further north, across the Algerian border. In Niger, the Aïr Mountains also showed up as providing suitable survival conditions, which was confirmed by a survey in the south-east on 5-14 February. In Chad, only a few patches of vegetation were shown as persisting in the Fada area.

In **North-West Africa**, light to moderate rains fell over northern Sahara (2.4 mm at Tindouf; 61 mm at El Golea) and the Hoggar Mountains (39 mm at Illizi), in Algeria, during the first two dekads of February. Satellite imagery suggested that vegetation was developing in the extreme South, near the Malian border, in the Hoggar and in the Tassili N'Ajjer. In Morocco, satellite imagery suggested that green areas had greatly reduced in the Gueltat Zemmour area and that new patches of vegetation had appeared further north, between the Mauritanian border and 27N/09-11W.

In **Eastern Africa**, light to moderate rains were reported respectively from Egypt, north to 26N, and from Sudan (70 mm at Dongola during the 2nd dekad). Satellite imagery suggested that vegetation was dry in south-eastern Egypt, which was confirmed by a sur-

vey in this area on 28-29 February. In Sudan, vegetation was dry along the Red Sea coast north Port Sudan but remained green from Port Sudan to the Eritrean border. In Eritrea, satellite imagery suggested that vegetation was not well developed along the coastal plains from Massawa to Wadi Teclai and was drying out from Wadi Teclai to the Sudanese border. In Somalia, as a result of poor winter rains, vegetation was dry or drying out in the North-West, except in the wadis where patches of green vegetation were still present on 19-24 February.

In the **Near East**, light to moderate rains fell over north-western Saudi Arabia during February. Light rains were also reported from Yemen (1mm at Hodeidah during the 3rd dekad), Oman and Kuwait. In Saudi Arabia, satellite imagery suggested that vegetation was green along the Red Sea coast between 19 and 20 N, which was confirmed by surveys. In Yemen, imagery indicated that vegetation continued to dry out along the coastal plains of the Gulf of Aden and the Red Sea, except in the area of Al Mukha (13 to 14N/4320E).

In **South-West Asia**, light rains were reported from southern Baluchistan, Pakistan, and in Rajasthan, India. Conditions are expected to improve in these areas.



Area Treated

Chad	8 ha (27 November 99)
Mauritania	221 ha (25-29 Feb)
Niger	700 ha (5-14 Feb.).



Desert Locust Situation and Forecast

(see also the summary on the first page)

WEST AFRICA

Mauritania

• SITUATION

In north-western Tiris Zemmour, breeding concerned locally dense populations throughout February. Mature adult population densities increased from 350-1,200 adults/ha during the first dekad to 1,200-3,000 adults/ha during the 2nd and 3rd dekads. 50 to 80% of these populations were copulating and the first laying was observed from 23 February over areas ranging from 0.04 to 4 ha. The eggpod density varied from 200 to 300/m². A total of 221 ha of groups of ma-

ture adults were sprayed in the north-east Bir Moghreïn (2516-2534N/1054-1109W). From the Zouerate area to the Malian border (23-24N/8-12W), scattered mature populations at densities varying from 2 to 120 adults/ha were observed during the month. In Tagant, late instar hoppers and fledglings were seen during the 1st dekad. Adults, locally maturing, at densities not exceeding 250 adults/ha, were reported at the end of the month.

• **FORECAST**

During the forecast period, breeding of groups in the extreme north-west and of scattered populations elsewhere will continue. Hatching is expected to start in mid-March. Fledging could start at the end of the forecast period. Elsewhere in the country, no significant developments are likely.

Mali

• **SITUATION**

No reports received in February.

• **FORECAST**

Locusts are likely slowly to mature during the forecast period. Local breeding will be limited because the soil is generally dry.

Niger

• **SITUATION**

Immature adult populations were present in south-eastern Air from 5 to 14 February. Compared with December, these populations occupied smaller surfaces (up to 400 ha) at lower densities (from 50 to 5,000 adults/ha). At three places, hoppers of 4th and 5th instars were mixed with adult populations. A total of 700 ha were sprayed against the densest populations in the area of wadi Tafidet (1757 to 1809N/0927 to 0944E).

• **FORECAST**

Locusts are expected slowly to mature during the forecast period. Local breeding will be limited by the dry soil.

Chad

• **SITUATION**

A late report indicates that Desert Locust populations composed of late instar hoppers, immature and mature adults were present in the Fada area (1622 to 1714N/2121 to 2143E) from 25 November to 10 December 1999. The densities varied from 2 to 80 adults/ha. Maximum densities of 10,000 adults/ha were observed at Wadi Edié (1648N/2143E) where 8 ha were treated. Desert Locusts were frequently mixed with Migratory Locusts at a density of 20 adults/ha.

No further reports have been received.

• **FORECAST**

Locusts may concentrate in the few remaining green patches of vegetation. 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 February.

• **FORECAST**

Low numbers of adults may be present and persist in the extreme south where the conditions are locally improving. With temperature increase, local breeding is likely during the forecast period.

Morocco

• **SITUATION**

A few small groups were seen in the far South, near the Mauritanian border (2128N/1558W), on 23 February. No locust activity was reported from the South and the South-East by the ground survey teams.

• **FORECAST**

No significant developments are likely.

Libyan Arab Jamahiriya

• **SITUATION**

Isolated immature adults were reported from the South, in the areas of wadi Ghazah (2128N/2431E) and wadi Tannezuft (2507N/1015E) in February.

• **FORECAST**

No significant developments are likely.

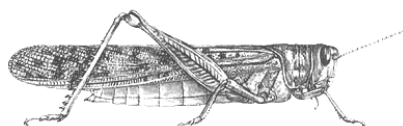
Tunisia

• **SITUATION**

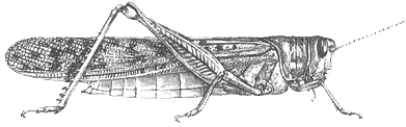
No reports received.

• **FORECAST**

No significant developments are likely.



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EASTERN AFRICA

Sudan

• **SITUATION**

No locusts were seen in the northern part of the Red Sea coast, from 31 January to 4 February. Low densities of solitary mature adults were reported on 21-22 February at Hoshiri (1925N/3716E), North Suakin, and at Galalema (1822N/3741E) in the Tokar Delta. A total area of 2,600 ha infested by mixed populations of solitary mature adults and 1st to 4th instar hoppers at densities ranging from 100 to 150 individuals/ha, was identified on 22-23 February, south of Suakin (1844 to 1903N /3720 to 3728E).

• **FORECAST**

Numbers of adults are expected to decrease during the forecast period and hoppers will continue to appear as a result of a small scale winter breeding in the most suitable areas.

Eritrea

• **SITUATION**

No reports received.

• **FORECAST**

Hopper development may be in progress during the forecast period as a result of a small-scale breeding in patches of green vegetation along the Red Sea coastal plains, from Massawa to the Sudanese border.

Somalia

• **SITUATION**

Only isolated immature adults were seen at two places in the coastal plains (1111N/4323E & 1036N/4350E) during surveys on 19-24 February.

• **FORECAST**

Adults are expected to mature and start breeding on a small scale in the remaining green areas of the coastal plains during the forecast period.

Ethiopia

• **SITUATION**

No locusts were reported from the winter breeding areas, between Dire Dawa and Djibouti and between Jijiga and the Somali border, during February.

• **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 surveys carried out on 20-22 February from north Qunfidah (1907N/4004E) to Tafeal (2048N/3943E) and from the Yemeni border (1625N/4249E) to north Jizan (1743N/4201E).

• **FORECAST**

During the forecast period, breeding is expected to continue on a small scale along the Red Sea coastal plains, particularly between 19 and 20N.

Yemen

• **SITUATION**

No reports received.

• **FORECAST**

As a result of local breeding on the Red Sea coastal plains, numbers are likely to increase during the forecast period.

Egypt

• **SITUATION**

Only two mature solitary adults were seen in Wadi Eikwau (2159N/3637E) on 28-29 February during a joint border survey.

• **FORECAST**

No significant developments are likely.

Kuwait

• **SITUATION**

A late report indicates that no locusts were present in January.

• **FORECAST**

No significant developments are likely.

Oman

• **SITUATION**

A late report indicates that no locusts were seen in the North (25 to 26N/56E) during the third dekad of December and the third dekad of January.



Announcements

- **FORECAST**

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

- **FORECAST**

No significant developments are likely.

Pakistan

- **SITUATION**

No locusts were reported during the first fortnight of February.

- **FORECAST**

Scattered adults are expected to mature and breed during the forecast period as the conditions will slowly improve in the coastal areas of Baluchistan.

India

- **SITUATION**

No locusts were seen during surveys in February.

- **FORECAST**

No significant developments are likely.

Afghanistan

- **SITUATION**

No reports received.

- **FORECAST**

No significant developments are likely.

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.

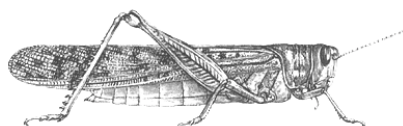
Reporting by email. Affected countries are encouraged to send completed FAO Locust Survey Forms with a brief interpretation of the results by email to eclo@fao.org.

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

Western Region. The technical and legal consultation on the restructuring of bodies responsible for Desert Locust management in Western and North-Western Africa will be held in Rabat, Morocco, on 12-14 April 2000.

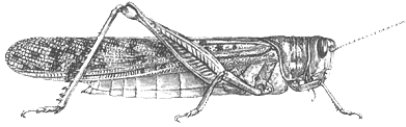
Desert Locust Technical Group. The 7th meeting of the Technical Group will be held in Rome on 12-15 June 2000.

FAO Commission for Controlling the Desert Locust in North-West Africa. The 29th Session of the Executive Committee will be held in Algiers, Algeria, on 19-22 June 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

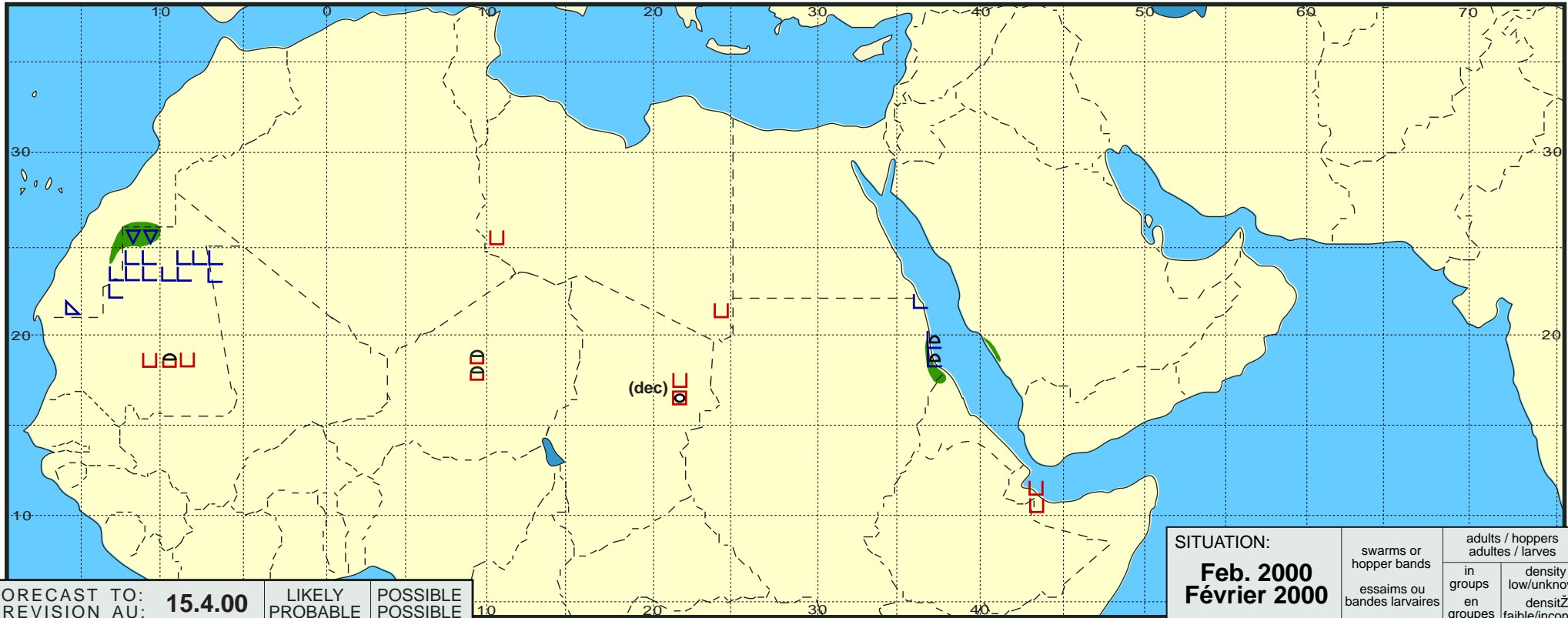
- period of deep recession marked by the complete absence of gregarious populations.



Desert Locust Summary

Criquet pèlerin - Situation résumée

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FORECAST TO: PREVISION AU:	15.4.00	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: Feb. 2000 Février 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 larves			
hoppers & adults (combined symbol example) larves et adultes (exemple symboles combinés)			