

# **FAO Emergency Centre for Locust Operations**



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# General Situation during December 2000 Forecast until mid-February 2001

A Desert Locust outbreak continued for the third consecutive month in central Mauritania where ground teams treated small hopper bands during December. By the end of the month, control had finished and there were indications that only low numbers of adults were moving into northern Mauritania. Although there were no reports of significant populations in neighbouring countries, some locusts may appear during the forecast period. On the Red Sea coastal plains, a few locusts were seen in Sudan and are likely to be present in Eritrea, Saudi Arabia and Yemen where good rains fell. Small scale breeding is expected during the forecast period. Elsewhere, the situation is calm.

Western Region. Small hopper bands continued to mature in central and western Mauritania where they started to form groups of adults in early December. Control teams treated nearly 3,000 ha of hopper bands and adults. By the third dekad of the month, no further bands were found and control ceased. The newly formed groups of adults moved northwest into Inchiri while others are in the process of moving towards northern Mauritania. There is a possibility that some of these could appear in parts of southern Morocco and western Algeria. The scale of the recent

breeding and the current movement is much less than one year ago which suggests that breeding in northern Mauritania during the coming months is likely to be on a relatively small scale and only limited control may be required. No reports were received from other countries in the Region.

Central Region. Scattered adults were present on the southern coastal plains of the Red Sea in Sudan where small scale breeding is expected but may be difficult to detect due to the extremely low numbers of locusts. Although no reports were received, a similar situation is expected in Eritrea, Saudi Arabia and Yemen where good rains fell for the third consecutive month. Scattered adults were present in northern Somalia and no locusts were seen in Egypt during December.

<u>Eastern Region</u>. No locusts were reported in **Iran**, **Pakistan** and **India**. No significant developments are likely in the Region.

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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Breeding conditions have become favourable in parts of northern Mauritania as a result of November rainfall. Conditions remain good along both sides of the Red Sea coast as a result of further rainfall during December. Scattered showers fell in the winter/spring breeding areas of Baluchistan, Pakistan.

In West Africa, no significant rainfall was reported during December in the Region. In Mauritania, temperatures declined steadily throughout the month, dropping to 23-30°C (maximum) and 8-19°C (minimum) by the end of the month. Conditions were favourable for the survival of locusts in the Tamkarkart. southern Adrar and Inchiri areas of central and western Mauritania but started to dry out during the last dekad. Although there was no indication of recent rainfall in the extreme north of Mauritania where locusts are expected to arrive, conditions have become favourable as a result of November rainfall between Zouerate and Bir Moghrein. In northern Mali, sparse vegetation is thought to be present in parts of the Adrar des Iforas which should be enough to provide shelter for locusts. Elsewhere in the Region, it is dry and unfavourable for breeding.

In North-West Africa, heavy rains fell in Morocco in late December, mainly north of the Atlas Mountains but light showers extended south along the coast to Laayoune. In north-western Algeria, Oueds Bechar and Saoura were reported to be flooded between Bechar and Beni Abbes. Elsewhere, no significant rainfall was reported. Conditions are expected to be generally unfavourable for locust breeding but there may be enough sparse vegetation in parts of southern Algeria and the extreme south-west of Morocco to allow locust survival.

In **Eastern Africa**, heavy rains fell on the Red Sea coast of Sudan between Port Sudan (54 mm) and Tokar on 18 December where conditions continue to be favourable for breeding. It is likely that good breeding conditions extend further south along the coastal plains into Eritrea as far as Tio as a result of rainfall

and runoff from the highlands. In Djibouti, light showers fell on the coast east of the capital. In northern Somalia, green vegetation was reported in several places along the escarpment and coastal foothills.

In the **Near East**, moderate rains fell during the second week of December along most of the Red Sea coast of Egypt, including southern areas near the Sudanese border, and on the coastal plains of Saudi Arabia at Jizan. Consequently, breeding conditions should be improving in most of these areas. In Yemen, conditions continue to be favourable for breeding along the northern and central Red Sea coast as well as in places along the coastal plains east and west of Aden. Light rains fell at mid month in some coastal and interior areas of northern Oman.

In **South-West Asia**, moderate showers fell in a few places in coastal (Jiwani, 50 mm) and subcoastal (Turbat, 37 mm) Baluchistan, Pakistan during the first half of December. Light rains fell in the northern interior at Nushki (5 mm) and Quetta (7 mm) during the same period. Elsewhere in the region, dry conditions prevailed.



# Mauritania Area Treated

2,902 ha (December)



( see also the summary on the first page )

### **WEST AFRICA**

### Mauritania

### • SITUATION

In early December, the small hopper groups and bands that were present south of Akjoujt (1945N/ 1421W) and south of Atar (2032N/1308W) during the previous month continued to mature, reaching densities of up to 80 hoppers per sq. m., and to fledge, forming adult groups at densities up to 12 locusts per sq. m. Ground control operations continued against the bands, treating 2,902 ha during the first two dekads. By the third dekad, no further hoppers were reported in the breeding areas and control operations had ended. Most of the adult groups moved northwest into southern Inchiri and north towards Tiris Zemmour while a few persisted near the breeding areas south of Akjoujt and Atar. Reports from the north at the end of the month suggested that low numbers of adults had arrived in Tiris Zemmour where they were seen near

Zouerate (2244N1221W) on the 27th and near Bir Moghrein (2510N/1135W) on the 31st while others were continuing to move into the region.

#### Forecast

Scattered adults and small groups will continue to arrive in parts of Inchiri, northwest of Akjoujt, and in Tiris Zemmour north and northeast of Zouerate. This is likely to occur during periods of warm southerly winds. Although adult maturation may be delayed by cool temperatures, small scale laying could commence in February in those areas where conditions remain favourable from earlier rains, mainly between Zouerate and Bir Moghrein, giving rise to hoppers at the end of the forecast period.

#### Mali

• SITUATION

No reports received.

Forecast

Low numbers of adults are likely to persist in a few wadis of the Adrar des Iforas. No significant developments are expected.

#### Niger

SITUATION

No reports received.

Forecast

A few isolated adults may persist in parts of the Air. 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

Further details of locusts reported in the south during November indicate that individual solitarious adults were present in Oued Tamanrasset (2158N/0414E) and at three places near Djanet (2434N/0930E) in the south-east during the month. No reports were received for December.

#### • Forecast

Low numbers of adults will persist and slowly mature in the south near Tamanrasset and Djanet. Additional adults and perhaps a few small groups could appear from Mauritania in the north-west near Tindouf during periods of warm southerly winds.

#### Morocco

• SITUATION

No reports received.

• Forecast

Low numbers of locusts may be present in parts of the extreme south-west where small scale breeding could occur if rains recently fell. Early in the forecast period, scattered adults and perhaps a few small groups could appear during periods of warm southerly winds in the south from the Mauritanian border to the Draa Valley. Breeding may occur in areas of rainfall.

#### Libyan Arab Jamahiriya

SITUATION

No reports received.

• Forecast

No significant developments are likely.

#### Tunisia

• SITUATION

No reports received.

• FORECAST

No significant developments are likely.

#### **EASTERN AFRICA**

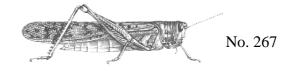
#### Sudan

• SITUATION

On 1-2 December, very low numbers of mature adults were reported on the Red Sea coastal plains at four places near Suakin (1908N/3717E) and Port Sudan (1938N/3707E). During the second half of the month, similar populations were found at an additional seven places in the same area as well as in the wadis south of Suakin, in Tokar Delta and in the Red Sea Hills near Tomala (2003N3551E).

#### • Forecast

Locust numbers will gradually increase along the Red Sea coastal plains between Port Sudan and Karora as a result of small scale breeding during the forecast period. As initial numbers are very low, it may be difficult to detect the first generation of hoppers.



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#### **Eritrea**

• SITUATION

No Desert Locusts were reported during December.

FORECAST

Low numbers of solitarious adults are likely to be present in a few areas along the Red Sea coastal plains between Tio and Karora. Small scale breeding is expected to occur in those areas of recent rainfall or runoff. Consequently, locust numbers will gradually increase during the forecast period but no significant developments are likely.

#### Somalia

• SITUATION

Scattered immature adults were present at one location on the escarpment between Hargeisa (0931N/4402E) and Berbera (1028N/4502E) on 2 December and at another location south-east of Bosaso (1118N/4910E) on the 4th.

• Forecast

Low numbers of adults will mature and breeding could occur in a few areas along the coast and on the escarpment where ecological conditions are favourable. No significant developments are likely.

#### **Ethiopia**

• SITUATION

No reports received.

• Forecast

No significant developments are likely.

### Djibouti

• SITUATION

No surveys were carried out during December.

• Forecast

No significant developments are likely.

### Kenya, Tanzania and Uganda

• FORECAST

No significant developments are likely.

#### **NEAR EAST**

#### Saudi Arabia

• SITUATION

No reports received

• FORECAST

Low numbers of solitarious adults are likely to be present and breeding near Jizan in areas of recent rainfall. Isolated adults are likely to appear and start to breed in other areas along the Red Sea coastal plains between Jizan and Jeddah. Consequently, locust numbers will slowly increase during the forecast period.

#### Yemen

• SITUATION

No surveys were carried out during November and December.

• Forecast

Low numbers of solitarious adults are likely to be present and breeding on a small scale in a few places of the Red Sea coastal plains in areas of recent rainfall. Consequently, locust numbers will slowly increase during the forecast period.

#### **Egypt**

• SITUATION

No locusts were seen during surveys carried out on the Red Sea coastal plains and in the Western Desert during December.

• FORECAST

A few isolated adults may appear on the Red Sea coastal plains between Halaib and Shalatyn. No significant developments are likely.

#### **Kuwait**

• SITUATION

No reports received.

• FORECAST

No significant developments are likely.

### Oman

• SITUATION

No surveys were carried out during December.

• 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 locusts were seen during surveys carried out in December on the south-eastern coastal plains near Jask and Chabahar and in the interior near Iranshahr

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and Kerman.

• FORECAST

No significant developments are likely.

#### **Pakistan**

SITUATION

No locusts were reported during the second half of November and during the first half of December.

Forecast

A few isolated adults may appear in coastal areas of Baluchistan. No significant developments are likely.

#### India

SITUATION

No locusts were reported during the second half of November and during December.

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 Desert Locust Survey and Control Forms with a brief interpretation of the results by email to <a href="mailto:eclo@fao.org">eclo@fao.org</a>.

EMPRES (Desert Locust) Western Region Programme. A Planning Workshop: EMPRES activities in the Western Region – Phase I: Pledges and operations, will be held in Nouakchott, Mauritania from 10-15 February 2001.

The Commission for Controlling the Desert Locust in the Central Region. The 23rd Session will be held in Cairo, Egypt in April 2001.

The Commission for Controlling the Desert Locust in North-West Africa. The 23rd Session will be held in Algiers, Algeria from 2-7 June 2001.

<u>Desert Locust Control Committee</u>. The 36th Session will be held in Rome from 24-28 September 2001.

Locust activities in Peru. The Locust Group is providing assistance to Peru under a Technical Cooperation Programme (TCP) project for control of the Peruvian Locust (*Schistocerca piceiferons peruviana*). The project was approved in December for two years to provide technical and contractual assistance, materials, supplies and equipment, and training.



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

# ADULT SWARM AND HOPPER BAND SIZES VERY SMALL

VERT SWIALL

swarm: less than 1 km²

SMALL

• swarm: 1 - 10 km<sup>2</sup>

MEDIUM

swarm: 10 - 100 km<sup>2</sup>
 LARGE

• swarm: 100 - 500 km<sup>2</sup>

VERY LARGE
• swarm: 500+ km<sup>2</sup>

• band: 1 - 25 m<sup>2</sup>

• band: 25 - 2,500 m<sup>2</sup>

• band: 2,500 m<sup>2</sup> - 10 ha

• band: 10 - 50 ha

• 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-togregarious 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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