

DESERT LOCUST BULLETIN

FAO Emergency Centre for Locust Operations



No. 247
(4 May 1999)



General Situation during April 1999 Forecast until mid-June 1999

The Desert Locust situation continued to be calm during April. No significant infestations were reported. Mostly dry and hot weather prevailed in locust breeding areas. As a result of the poor rainfall during the past few months and the absence of spring breeding, current locust population levels are very low which suggests that breeding this summer will be on a small and limited scale. No significant developments are expected.

Eastern Region. Low numbers of solitary adults were present in the spring breeding areas of western **Pakistan**. Although small scale breeding may have occurred, locust numbers are likely to remain low. No locusts were reported in adjacent areas of eastern **Iran** due to unusually dry conditions. Isolated adults were seen in Rajasthan, **India**. The scale of adult movement from the spring breeding areas to the summer breeding areas along the Indo-Pakistan border which normally commences during the forecast period is expected to be insignificant this year.

Central Region. Hot and dry weather prevailed throughout the region during April. Isolated adults were present and maturing in two places in north-western **Somalia** where light rains fell and small scale breeding may occur. No locusts were reported elsewhere in the region. Very few locusts are reported to have been present in the winter and spring breeding areas along the Red Sea coast that could move into the summer breeding areas in the interior of **Sudan**. This suggests that summer breeding will be on a very small scale this year.

Western Region. Scattered adults were treated in western **Libya** near the Algerian border. No further locusts were seen in the south-east where a localised outbreak occurred earlier this year. Light rains fell in a few places in southern **Mauritania** and in the northern Sahara of **Algeria** but no locusts were reported from these countries. Isolated adults were seen at one location in north-eastern **Morocco** where conditions continued to be dry. No significant developments are expected.

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 April 1999

Mostly hot and dry weather prevailed in the Desert Locust recession area during April. No significant rainfall was reported and conditions were not favourable for breeding except for a few places in western Pakistan and perhaps in the interior of Yemen.

In **North-West Africa**, mostly hot and dry weather prevailed in the region. In Algeria, light rains fell in a few parts of the northern Sahara. Vegetation was reported to be dry except for a few small areas in the central Algerian Sahara near Ahnet and Mouydir. Dry vegetation and unfavourable breeding conditions were reported in Morocco. Light rains fell over parts of north-western Libya where conditions are dry.

In **West Africa**, light rains fell at times in south-western Mauritania. Except for a few small patches of green vegetation in some depressions and wadis in the north, dry conditions prevailed throughout the country as a result of high daily temperatures. Similar conditions are likely to be present in the Adrar des Iforas in northern Mali and in the Tamesna in Niger.

In **Eastern Africa**, hot and dry conditions prevailed in most locust breeding areas. Light rains fell over north-western Somalia but these were considerably less than in March and were primarily restricted to the Boroma and Baki areas on the escarpment. Green vegetation was reported in some wadis but was becoming dry in most other places. A few isolated showers fell in adjacent areas of eastern Ethiopia near Dire Dawa. Conditions continued to be unfavourable for breeding along the western coast of the Red Sea.

In the **Near East**, no significant rainfall was reported during April. Light showers fell in the Asir Mountains that border the Red Sea coastal plains in Saudi Arabia. Some run-off may drain onto the plains where small patches of green vegetation was reported. This may be enough to allow the survival of low numbers of locusts but not enough for breeding on a significant scale. In Yemen, dry vegetation prevailed along the coastal plains of the Red Sea and Gulf of Aden. Con-

ditions may be improving in the interior of Shabwah where moderate to heavy rains fell at the end of March.

In **South-West Asia**, unusually dry conditions prevailed in the spring breeding areas of south-eastern Iran as a result of poor rainfall during the past four months. The little rain that fell in March came too late and was not sufficient to improve conditions and allow breeding. Breeding conditions in western Pakistan may be a bit more favourable as a result of good rains during March but vegetation is likely to be drying out in many areas as a result of poor rainfall during April.



Area Treated

Libya 100 ha (February - March)



Desert Locust Situation and Forecast

(see also the summary on the first page)

WEST AFRICA

Mauritania

• SITUATION

No surveys were conducted and no locusts were reported during the second half of March and first half of April. No locusts were seen during surveys in the second half of April between Nouakchott and Atar.

• FORECAST

Isolated adults may be present in a few places in the north between Akjoujt and Zouerate, and a few adults may start to appear in central and southern areas by the end of the forecast period. No significant developments are likely.

Mali

• SITUATION

No reports received.

• FORECAST

Isolated locusts may be present in a few areas in the Adrar des Iforas.

Niger

• SITUATION

No reports received.

• FORECAST

Isolated adults may be present in a few areas of Tamesna.

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 April.

• FORECAST

Isolated adults may be present in a few places in the central and southern Sahara near Ahnet and Mouydir, and perhaps south of the Atlas Mountains near Bechar. No significant developments are likely.

Morocco

• SITUATION

Isolated immature adults, at densities of 1-5 per ha on 26 ha, were reported in the north-east near Bouarfa at Bourdim (3201N/0312W) on 8 April.

• FORECAST

As temperatures increase, adults in the north-east will mature and small scale breeding could occur if rains fall. Isolated adults may be present in the Adrar Souttoug region of the extreme south-west.

Tunisia

• SITUATION

No reports received.

• FORECAST

No significant developments are likely.

Libyan Arab Jamahiriya

• SITUATION

The local outbreak that occurred during January and February in the south-east near Jebel Uweinat has come to an end. Some re-grouping of hoppers and adults was reported and 100 ha of bands were treated in late February north of Uweinat in Wadi Bali (2253N/2438E). No further locusts were seen during surveys up to 25 April. In the extreme west along the Algerian border, low densities of scattered adults were treated near Ghat in Wadi Ingall (2447N/1013E) and near Ghadames in Wan Khalil (2911N/1003E).

• FORECAST

A few isolated adults may persist near the Algerian border in the Hamadat Al Hamrah.

EASTERN AFRICA

Sudan

• SITUATION

No reports received.

• FORECAST

Adults may start to appear in the summer breeding areas and could lay if early rains fall. However, locust numbers and the scale of the first generation of summer breeding are expected to be extremely low as a result of the failure of winter and spring breeding along the Red Sea coasts.

Eritrea

• SITUATION

No reports received.

• FORECAST

No significant developments are likely.

Somalia

• SITUATION

Surveys undertaken on 16-22 April indicated that isolated adults continued to be present and were slowly maturing on the escarpment west of Hargeisa near Boroma and in the upper end of the Dobo Valley (1019N/4320E) near the base of the foothills on the north-western coast.

• FORECAST

Small scale breeding is likely to occur in the north-western interior and in parts of the adjacent coastal areas but will be limited unless further rains fall.

Ethiopia

• SITUATION

No locusts were seen during surveys on 1-2 April between Dire Dawa and Djibouti, along the railway north-west of Dire Dawa on the 6-7th, or in the Jigjiga area on the 12-16th.

• FORECAST

A few adults may appear in the Railway area where rains have fallen recently.

Djibouti

• SITUATION

No reports received.



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- **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 April on the Red Sea coastal plains.

- **FORECAST**

No significant developments are likely.

Yemen

- **SITUATION**

No locusts were seen during surveys on the coastal plains west of Aden on 21-25 March. No reports were received during April.

- **FORECAST**

There is a low possibility that isolated adults may be present and breeding in the Shabwah interior where good rains fell in late March.

Egypt

- **SITUATION**

No reports received.

- **FORECAST**

No significant developments are likely.

Kuwait

- **SITUATION**

No reports received.

- **FORECAST**

No significant developments are likely.

Oman

- **SITUATION**

No reports received.

- **FORECAST**

No significant developments are likely.

UAE

- **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**

A late report indicated that no locusts were seen during surveys on 20-24 February near Jask and on 2 March near Bushehr.

During the first half of April, no locusts were seen in the coastal and interior areas of the south-eastern provinces of Sistan-Baluchistan, Hormozgan and Kerman.

- **FORECAST**

No significant developments are likely.

Pakistan

- **SITUATION**

No reports were received during the second fortnight of March.

During the first fortnight of April, locust numbers increased in the spring breeding areas of Baluchistan. Isolated adults were reported from about 24 places, mostly along the coast near Gwadar, Pasni, Turbat and Uthal where densities were highest (up to 14 per location), and to a lesser extent in the interior near Panjgur, Khuzdar, Nushki and Quetta.

- **FORECAST**

Although small scale breeding is likely to be in progress in some coastal and interior areas of Baluchistan, locust numbers are expected to remain at a low level and will decline by the end of the forecast period.

India

- **SITUATION**

No locusts were seen during the second fortnight of March.

During the first fortnight of April, isolated adults were seen on the 12-13th in Rajasthan at Nagpur (2712N/7345E).

- **FORECAST**

Isolated adults will persist in a few places in Rajasthan. No significant developments are likely.

Afghanistan

- **SITUATION**

No reports received.

- **FORECAST**

No significant developments are likely.



Other Migratory Pests

African Migratory Locust in Madagascar. In the south-west, second generation hopper development has come to an end, except in some north-eastern parts of the area, and swarms were starting to move. In early April, a third generation of hatching was reported in the east and by the end of the month, hopper bands were reported and maturing swarms were seen moving north of Toliary. Elsewhere in the country, hatching was reported in central-western areas and swarms were seen in the west and near Mahajanga in the north-west. Conditions were drying out in the western part of the country but continued to be favourable in the east as a result of continuing rains. During April, more than 460,000 ha were protected against hopper bands using barrier treatments.

Red Locust in Madagascar. The first new swarms appeared during the last dekad of March in the south-west of the country where they persisted during April.

Armyworm Outbreak. A major outbreak of the armyworm (*Spodoptera exempta*) is underway in East Africa. This began in south-western **Tanzania** in February and has been following the classical northward migration routes into central Tanzania near Dodoma. **Rwanda** has reported a major invasion which is currently being assessed. There are a large number of reports of armyworm from the Serengeti in Tanzania and some may have already crossed the border into **Kenya**. Movements are likely to continue further north to **Uganda** and **Ethiopia** with the possibility of eventually reaching **Yemen**.



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.

Joint Meeting to Define a Common Strategy and to Restructure the Organizations Responsible for Locust Control in the Western Region. A follow-up meeting will be held in Rome on 21-22 May.

Desert Locust Control Committee. The 35th session of the DLCC will be held on 24-28 May 1999 in Rome. Working papers in English, French and Arabic can be downloaded from the locust webpage: <http://www.fao.org/news/global/locusts/locuhome.htm>.

Sudan Joint Survey Report. The report from a joint survey carried out on the Red Sea coastal plains of Sudan in March is available for downloading from the locust publications webpage: <http://www.fao.org/news/global/locusts/pubs1.htm>.



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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

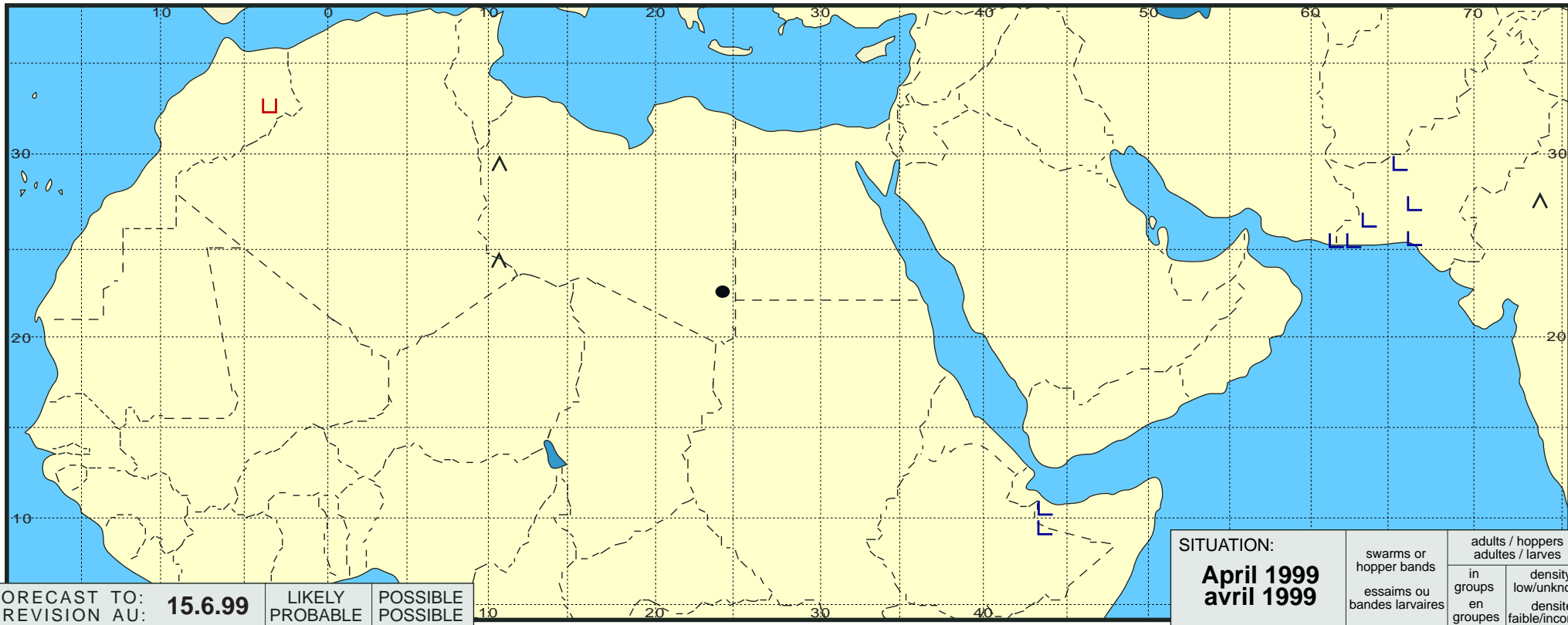
- period of deep recession marked by the complete absence of gregarious populations.



Desert Locust Summary

Criquet pèlerin situation résumée

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FORECAST TO: PREVISION AU:	15.6.99	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: April 1999 avril 1999	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)			