



DESERT LOCUST BULLETIN

FAO Emergency Centre for Locust Operations



No. 289

(5 Nov 2002)



General Situation during October 2002 Forecast until mid-December 2002

The Desert Locust situation remained calm during October. Although vegetation started to dry out in the summer breeding areas of West Africa, localized breeding was reported in parts of Mauritania, Mali and Niger. Small groups of hoppers and adults were treated in southern Yemen. Any escapees are likely to move to the southern Red Sea coastal plains where conditions continue to be favourable for breeding. During the forecast period, breeding will continue in northwest Mauritania and should commence along the Red Sea coastal plains.

Western Region. Small-scale breeding was in progress during October in a few places of central and western Mauritania. An increasing number of solitary adults appeared in the northwest where laying occurred during September giving rise to solitary hoppers in October. Breeding occurred in northern Mali where there were unconfirmed reports of hopper bands in September and October as well as adults flying further north into southern Algeria. A survey in late October found only low densities of adults and hoppers. Nevertheless, some adults could move north into southern Algeria. Breeding was also reported on a smaller scale in Niger. Unusually

good rains fell over southern Algeria that may cause vegetation to become green and provide a suitable habitat for any adults moving out of the summer breeding areas in Mali and Niger.

Central Region. Ground control operations treated 200 ha of hopper and adult groups on the coastal plains near Aden, Yemen. Adults that escaped control are likely to move to the Red Sea coastal plains of Yemen where isolated adults are present and breeding conditions are already favourable. There is a low possibility that some adults may reach Eritrea and northern Somalia. During the forecast period, small-scale breeding will commence along the Red Sea coast from Yemen to Jizan, Saudi Arabia. Although no adults have been reported so far on the coasts of Sudan or Eritrea, they are likely to appear in the coming weeks and breed on small scale if rainfall occurs.

Eastern Region. No locusts were reported in the summer breeding areas of India and Pakistan where vegetation was drying out because of a lack of rainfall. No significant developments are likely in the region.

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Weather & Ecological Conditions in October 2002

Although seasonal rains have ended in the summer breeding areas of West Africa, Sudan and along the Indo-Pakistan border where vegetation is drying out, conditions are favourable for breeding in parts of northwest Mauritania and northern Mali. Unusually heavy rains fell in southern Algeria where conditions are improving. Breeding conditions continue to be favourable along the Red Sea coast in Yemen and southern Saudi Arabia.

In the **Western Region**, the Inter-Tropical Convergence Zone (ITCZ) oscillated between 15N and 20N during the first half of October and gradually retreated southwards, remaining well south of 15N during the last decade of the month where it remained around 10N. Consequently, only a few showers were reported in the Sahel of West Africa and vegetation was drying out. In Mauritania, good rains fell during the first decade of October in the southwest (Trarza) and in the southern parts of the two Hodhs. During the second decade, rainfall was limited to a few places in the extreme southwest of the country. Light rains also fell in Adrar near Atar early in the month. Conditions were favourable for breeding in the east near Oualata, in the centre near Agane and in a few places in the northwest in Inchiri. In Mali, good rains fell during the first decade in the northern Adrar des Iforas from Tessalit to the Algerian border where vegetation remains green in some spots. These rains extended northwards into southern Algeria from Bordj Bou Mokhtar (29 mm) to Tamanrasset (80 mm). Other rainfall occurred in Algeria over the central and northern Sahara during the same period. Conditions are still favourable for breeding in a few areas of northern Mali and are improving in parts of southern Algeria. In Niger, conditions are less favourable and limited to just a few areas in Tamesna and western Air because of a lack of rainfall. Elsewhere in the region, conditions were dry.

In the **Central Region**, only a few isolated showers were reported in the summer breeding areas in the interior of Sudan during October. Consequently, vegetation is starting to dry out in most places.

Conditions are already favourable for breeding in some of the winter breeding areas along the Red Sea coast, primarily from Hodeidah, Yemen to Jizan, Saudi Arabia where additional rainfall, heavy at times, occurred during October. Good rains also fell on the coastal plains north of Jeddah at Yenbo (20 mm). In Eritrea, vegetation is green on the central coast near Shieb, Sheleshela and Wakiro. In Djibouti, green vegetation persisted along the northern coast from September rainfall. Conditions were dry and unfavourable along the southeastern coast of the Red Sea in Egypt because of lack of rainfall. Similarly, no rainfall was reported along the coast of Sudan. Conditions were becoming dry on the coastal plains near Aden, Yemen where only localized areas of green vegetation remain. Isolated showers were reported near Dire Dawa, Ethiopia and Burao, Somalia during the first half of October. In Oman, isolated showers fell during the first days of October in the northern interior.

In the **Eastern Region**, no significant rainfall was reported in the summer breeding areas along the Indo-Pakistan border during October. Consequently, vegetation was drying out in both areas.



Area Treated

Yemen 200 ha (21 October)



Desert Locust Situation and Forecast

(see also the summary on page 1)

WESTERN REGION

Mauritania

• SITUATION

During the first decade of October, isolated fledglings, immature and mature adults were present near Aioun El Atrous (1702N/0941W) and in a few places between Tidjikja (1829N/1131W) and Nouakchott. Small-scale breeding continued near Aioun El Atrous where a fifth instar hopper was seen and commenced near Moudjeria (1751N/1228W) where first instar hoppers were present.

From the second decade onwards, there was a shift in locust populations towards the west and northwest. An increasing number of mature adults were seen west of Moudjeria and there were new reports of mature adults, some copulating near Akjoujt (1945N/1421W) in southern Inchiri. Locust densities also increased, up to 200 adults per ha near Akjoujt.

First to third instar hoppers were reported at two places near Akjoujt on the 17-18th, suggesting that laying occurred in September. Solitarious hoppers of all instars, including new hatchlings, were seen near Moudjeria up to the 30th. In the southeast, scattered immature adults persisted north of Aioun and, to a less extent, near Oualata (1715N/0655W).

• **FORECAST**

Locust numbers will continue to increase in Inchiri and probably southern Adrar from small-scale breeding that will occur during the forecast period supplemented by low numbers of adults arriving from the summer breeding areas as vegetation dries out there.

Mali

• **SITUATION**

During the first decade of October, there were unconfirmed reports from nomads and travelers of third and fourth instar hopper bands and adults at several locations in the Tilemsi Valley, Timetrine and in the Adrar des Iforas north of Aguelhoc (1927N/0052E). Some damage was reported by locusts and grasshoppers on natural vegetation and adults were said to be seen flying further north towards the Algerian border. A survey undertaken at the end of the month found adults at densities up to 300 per ha and hoppers at densities up to 2 per sq. metre at several places in the Tilemsi Valley.

• **FORECAST**

Small-scale breeding is expected to continue during the forecast period in parts of the Adrar des Iforas, Tilemsi and Timetrine that could cause locust numbers to gradually increase. There is a low possibility that some adults will move northwards into adjacent areas of southern Algeria.

Niger

• **SITUATION**

Low numbers of first to third instar solitarious hoppers and mature adults at densities of 500-3,000 adults per ha were reported during the second decade of October at three places on the Talak plains northeast of Arlit near Agaliouk (1846N/0732E). Some adults were seen copulating.

• **FORECAST**

Small-scale breeding will continue as hoppers mature and additional hatching occurs near Arlit early in the forecast period. Nevertheless, locust numbers will decline in Tamesna and in western Air as vegetation dries out and breeding conditions become unfavourable. No significant developments are likely.

Chad

• **SITUATION**

No reports received.

• **FORECAST**

No significant developments are likely.

Senegal

• **SITUATION**

No reports received.

• **FORECAST**

No significant developments are likely.

Algeria

• **SITUATION**

No locusts were reported during October.

• **FORECAST**

Low numbers of adults may be present in the extreme south between Bordj Bou Mokhtar and Tamanrasset. These may be augmented by any locusts that appear from adjacent areas of northern Mali and Niger during periods of warm southerly winds. Small-scale breeding could occur in areas of recent rainfall south of the Hoggar Mountains. Regular surveys are highly recommended in these areas to monitor and clarify the situation.

Morocco

• **SITUATION**

No locusts were reported during October.

• **FORECAST**

No significant developments are likely.

Libyan Arab Jamahiriya

• **SITUATION**

A late report indicated that there were no locusts during September.

• **FORECAST**

No significant developments are likely.

Tunisia

• **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.



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CENTRAL REGION

Sudan

• SITUATION

No locusts were seen during surveys carried out in Northern Kordofan between El Obeid (1311N/3010E) and Wadi Milk (1641N/2951E) on 27 September to 2 October except for isolated mature adults at two places northwest of El Obeid. Surveys in the winter breeding areas on the Red Sea coast will commence in early November.

• FORECAST

Isolated adults are expected to appear on the Red Sea coastal plains between Port Sudan and Karora and breed on a small scale if rainfall occurs.

Eritrea

• SITUATION

A late report indicated that no locusts were seen during surveys carried out on the Red Sea coastal plains near Massawa (1537N/3928E) on 14-15 September.

• FORECAST

Isolated adults may be present in some areas along the Red Sea coastal plains between Massawa and Karora. There is a low possibility of additional adults appearing from Yemen. Small-scale breeding is likely to occur in areas of recent rainfall and lead to a gradual increase in locust numbers.

Somalia

• SITUATION

No reports received.

• FORECAST

A few scattered adults may appear on the coastal plains between Berbera and the Djibouti border during the forecast period. No significant developments are likely.

Ethiopia

• SITUATION

No reports received.

• FORECAST

No significant developments are likely.

Djibouti

• SITUATION

No surveys were conducted and no locusts were reported during October.

• FORECAST

A few scattered adults may appear on the coastal plains north of Obock and near Djibouti town during the forecast period. No significant developments are likely.

Egypt

• SITUATION

No locusts were reported during October along the Red Sea coast or in the Western Desert.

• FORECAST

No significant developments are likely.

Saudi Arabia

• SITUATION

No locusts were reported during October near Jeddah and Mecca. No reports were received of surveys elsewhere on the Red Sea coastal plains.

• FORECAST

Scattered adults are likely to be present in areas of recent rainfall along the Red Sea coastal plains between Qunfidah and Jizan where small-scale breeding is expected during the forecast period.

Yemen

• SITUATION

On the coastal plains northwest of Aden, small-scale breeding continued during October. Scattered solitary and transiens third to fifth instar hoppers and groups of fledglings and immature adults were reported in crops at three locations near Am Mashrabah (1301N/4423E) and Dar Al-Gudaimi (1302N/4423E) at mid month. Densities were 20-30 hoppers per sq. m. and 6,000 adults per ha. Ground control operations treated 200 ha on 21 October. Another location was set aside for a field trial using the biocontrol agent *Metarhizium*.

No locusts were seen on the Red Sea coast between Zabid (1410N/4318E) and Suq Abs (1600N/4312E) during surveys carried out on 28 September to 2 October. Isolated mature adults were seen at two locations near Bayt Al Faqih (1430N/4317E) during surveys conducted on 29-31 October from Zabid to the Saudi Arabian border.

• FORECAST

Further hatching is likely to occur on a limited scale on the coastal plains west of Aden that may lead to the formation of a few small groups of hoppers and adults. Once vegetation becomes dry, adults will almost certainly move to the Red Sea coast and join others that are already likely to be present. Small-scale breeding will occur there during the forecast period in areas of recent rainfall. Regular monitoring of the Red Sea coastal plains is recommended.

Oman

• SITUATION

No locusts were reported in the Dakhliya region during October.

• FORECAST

No significant developments are likely.

Bahrain, Iraq, Israel, Jordan, Kenya, Kuwait, Qatar, Syria Arab Republic, Tanzania, Turkey, UAE and Uganda

• FORECAST

No significant developments are likely.

EASTERN REGION

Iran

• SITUATION

No locusts were reported in Kerman and Hormozgan provinces on 13-14 October.

• FORECAST

No significant developments are likely.

Pakistan

• SITUATION

A late report indicated that isolated mature adults were present at three places in Tharparkar Desert, five places in Cholistan Desert and one place near Las Bela west of Karachi during the second half of September.

During the first half of October, locusts decreased in the summer breeding areas where only a few immature and mature adults were seen at three places in Cholistan. No locusts were reported during the last half of the month.

• FORECAST

No significant developments are likely.

India

• SITUATION

No locusts were seen during surveys carried out in the summer breeding areas of Rajasthan near Jodhpur and Bikaner during the second half of September and first half of October. No reports were received from Barmer or Jaisalmer.

• 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 all locust situation reports are sent to FAO HQ by the 28th 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 e-mail. After each survey or control operation, affected countries should send completed *FAO Desert Locust Survey and Control Forms* with a brief interpretation of the results by e-mail to eclo@fao.org.

Desert Locust Guidelines. The revised edition in English was issued on 24 September 2001 and is now available from FAO. Please contact the Locust Group for more information.

eLocust. Details of a new system under evaluation for recording and transmitting locust survey and control data collected in the field can be found on the Internet at: www.fao.org/news/2001/010601-e.htm

Publications on the Internet. A list of publications that can be downloaded from the FAO Locust webpages is now available (www.fao.org/news/global/locusts/pubslst.htm). New additions are:

- Report of the 23rd session of the NW Africa Commission (CLCPANO) in French and Arabic
- Report of the 36th session of the DLCC recently held in Rome (English and French; Arabic upon request)
- FAO Desert Locust Guidelines, revised edition, 2001 (English)
- FAO Spray Monitoring Form (English)

Desert Locust research award. The FAO Commission for Controlling the Desert Locust in the Central Region (CRC) is pleased to announce a cash award for outstanding research on Desert Locust. For more details, please contact the CRC Office in Cairo (munir.butrous@fao.org).



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Glossary of terms

The following special terms are used in the Desert Locust Bulletin when reporting locusts:

Master Trainer Course. Details and photos of a FAO training-of-trainers course on Desert Locust survey, control and training skills recently held in Oman are available at: www.fao.org/news/global/locusts/omntot/totmain.htm

2002 events. The following are scheduled:

- **FAO/CRC/DLCO-EA.** Harmonization of activities, Cairo (Egypt), 26-27 November
- **EMPRES/WR.** Improved locust control application techniques regional workshop, Nouakchott (Mauritania), 15-19 December
- **SW Asia Commission.** 23rd Session, Islamabad (Pakistan), 16-20 December

2003 events. The following are provisionally scheduled:

- **EMPRES/WR.** 1st Liaison Officers meeting, Niamey (Niger), 27-31 January
- **DLCC Technical Group.** FAO Rome, 24-26 February
- **EMPRES.** 6th Consultative Committee and Phase III Planning Workshop, Cairo (Egypt), 24-28 March
- **CRC.** 24th Session of the Executive Committee, Beirut (Lebanon), April
- **CLCPANO.** 24th Session, Tripoli (Libya), 4-8 May
- **CLCPRO.** 2nd Session, Alger (Algeria), June
- **DLCC.** 37th Session, FAO Rome, 22-26 September
- **EMPRES/CR.** 11th Liaison Officers meeting, December

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.

REGIONS

WESTERN

- locust-affected countries in West and North-West Africa: Algeria, Chad, Libya, Mali, Mauritania, Morocco, Senegal, Tunisia; during plagues only: Burkino Faso, Cape Verde, Gambia, Guidea Bissau and Guinea Conakry.

CENTRAL

- locust-affected countries along the Red Sea: Djibouti, Egypt, Eritrea, Ethiopia, Oman, Saudi Arabia, Somalia, Sudan, Yemen; during plagues only: Bahrain, Iraq, Israel, Jordan, Kenya, Kuwait, Qatar, Syria, Tanzania, Turkey, UAE and Uganda.

EASTERN

- locust-affected countries in South-West Asia: Afghanistan, India, Iran and Pakistan.



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Desert Locust Summary

Criquet pèlerin - Situation résumée

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FORECAST TO: PREVISION AU: 15.12.02	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: Oct 2002 oct 2002	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)			