

DESERT LOCUST BULLETIN

FAO Emergency Centre for Locust Operations



No. 332

(1 June 2006)



General Situation during May 2006 Forecast until mid-July 2006

The Desert Locust situation remained calm during May. The only significant locust activity was in Algerian Sahara where locust numbers increased slightly because of small-scale breeding in parts of the centre and southeast. Ground control teams treated nearly 4,000 ha. Elsewhere in the spring breeding areas in Northwest Africa, isolated adults and hoppers were present at one place along the Moroccan/Algerian border. Dry conditions prevailed in nearly all the other recession countries and very few locusts were reported. During the forecast period, low numbers of locusts should start to appear in parts of the summer breeding areas in the northern Sahel in West Africa and Sudan as well as along the Indo-Pakistan border. Small-scale breeding will commence in these areas with the onset of the seasonal rains.

Western Region. Small-scale breeding continued in eastern Algeria, giving rise to an increasing number of solitary and *transiens* adults. Limited breeding occurred in central Algeria where solitary hoppers and adults were present. Control operations were conducted mainly in eastern Algeria against the higher density infestations. Very little breeding is thought to have occurred this spring in other areas of Northwest Africa because of poor rainfall and dry conditions. Only a few isolated hoppers and adults were seen in Morocco near the Algerian border. No locusts were reported elsewhere in the region although isolated adults may be present in a few places in Western

Sahara, northern Mauritania, northern Mali, and the Air Mountains in Niger. Surveys should commence during the forecast period in the summer breeding areas in the northern Sahel in Mauritania, Mali and Niger as low numbers of locusts are likely to appear and lay eggs once the summer rains commence.

Central Region. Ecological conditions remained dry in the region and few locusts were reported during May. A solitary adult was seen on the Red Sea coastal plains in Eritrea and there was an unconfirmed report of locusts on the coast in northwest Somalia. No locusts were reported elsewhere in the region. Low numbers of adults are likely to appear and eventually lay eggs in the summer breeding areas in Sudan and in the interior of Yemen once the rains start. Surveys should commence in both countries during the forecast period.

Eastern Region. Mainly dry conditions prevailed and no locusts were reported in the region during May. Low numbers of adults are expected to appear along both sides of the Indo-Pakistan border and breed on a small scale once the monsoon rains start. 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 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 May 2006

Mainly dry conditions prevailed in the recession area during May. The Inter-Tropical Convergence Zone started moving northwards but remained south of the summer breeding areas in the Sahel in West Africa and Sudan.

In the **Western Region**, very little rain fell during May and vegetation continued to dry out in most areas. Light rain fell in a few places in the central Algerian Sahara near Adrar and In Salah as well as along the Libyan border between Illizi and Djanet. Towards the end of the month, showers fell in central and northwest Mauritania near Tidjikja and Atar. In the spring breeding areas along the southern side of the Atlas Mountains, vegetation was drying out in most places in Morocco and Algeria even though light rain fell along the Moroccan-Algerian border. In the Sahel of West Africa, the Inter-Tropical Convergence Zone (ITCZ) began its seasonal movement northwards but remained south of the summer breeding areas. Isolated showers may have occurred in a few places in the Adrar des Iforas in northern Mali, on the Tamesna Plains in Mali and Niger, and in the Tibesti Mountains in northwest Chad. Nevertheless, vegetation was either dry or drying out and ecological conditions were not favourable for breeding in the above-mentioned areas.

In the **Central Region**, mainly dry conditions prevailed during May except for some coastal areas of the Red Sea. The ITCZ began its seasonal movement northwards and reached the southern edge of the summer breeding areas in western and central Sudan (Geneina – El Fasher – south of El Obeid – Kassala). Consequently, sporadic light showers occurred in Sudan in the west near Nyala and Geneina, in the centre near El Obeid, in the north between Khartoum and Dongola, in the east between the Nile River and the Red Sea Hills. Along the Red Sea coastal plains, light rain fell near Suakin, Sudan, on the northern coast in Eritrea near Mehimet, on the southern coast near Jizan, Saudi Arabia, and in a few places on the Yemeni coast. Light rain also fell at times in parts of northwestern Somalia near Hargeisa, Upper Egypt near Lake Nasser and in parts of the Western Desert,

and northern Oman. Seasonal rains commenced in the summer breeding areas in the interior of Yemen and some rain may have fallen on the coast near the Yemen/Oman border at the end of May. Despite these showers, ecological conditions remained generally unfavourable for breeding except for perhaps a few places on the Red Sea coastal plains in northern Eritrea and Yemen.

In the **Eastern Region**, light rain fell in a few places in Rajasthan, India during May. Dry conditions prevailed in both the spring and summer breeding areas.



Area Treated

Algeria 3,832 ha (16-26 May)



Desert Locust Situation and Forecast

(see also the summary on page 1)

WESTERN REGION

Mauritania

• SITUATION

During the last two decades of April, isolated solitary adults persisted in the north near Zouerate (2244N/1221W) and a few solitarious hoppers of mixed instars continued to be reported in the northwest east of Nouadhibou (2054N/1701W).

No surveys were carried out and no locusts were reported during the first decade of May.

• FORECAST

Unless further rainfall occurs, locust numbers will decline in the northwest and north. Adults are expected gradually to move southwards and reach the summer breeding areas of the south where they will mature and breed on a small scale if rainfall occurs.

Mali

• SITUATION

No locusts were reported during May.

• FORECAST

Isolated adults may be present in a few places in the Adrar des Iforas. A few adults could eventually appear from the Algerian Sahara and breed on a small scale if rainfall occurs.

Niger

• SITUATION

No surveys were carried out and no locusts were reported up to 10 May.

- **FORECAST**

Isolated adults may be present in a few places in the Air Mountains. A few adults could eventually appear from the Algerian Sahara and breed on a small scale in Tamesna if rainfall occurs.

Chad

- **SITUATION**

No reports were received during May.

- **FORECAST**

No significant developments are likely.

Senegal

- **SITUATION**

No locusts were reported during May.

- **FORECAST**

No significant developments are likely.

Benin, Burkina Faso, Cameroon, Cape Verde, Côte d'Ivoire, Gambia, Ghana, Guinea Bissau, Guinea, Liberia, Nigeria, Sierra Leone and Togo

- **FORECAST**

No significant developments are likely.

Algeria

- **SITUATION**

During May, local breeding was in progress in the eastern Sahara near Illizi (2630N/0825E) where solitary and *transiens* hoppers continued to mature and had reached the fourth and fifth instar stage by mid month. Compared to the previous month, hopper densities declined to 1-6 hoppers/m² and 6-10 hoppers/bush. During the second half of the month, most of the hoppers had fledged and there was an increasing number of solitary and *transiens* immature adults, reaching densities up to 6 adults/m², seen during surveys. Ground control operations were undertaken in these areas and treated 3,832 ha from 16 to 26 May.

In the central Sahara, control teams treated 200 ha of *transiens* mature adults north of Tamanrasset (2250N/0528E). Isolated second to fourth instar hoppers mixed with solitary immature and mature adults were present near Adrar (2753N/0017W) at mid-month.

No locusts were seen during surveys carried out elsewhere in the central Sahara near In Salah (2712N/0229E), in the south near Tamanrasset and the Malian border, and in the southeast near Djanet (2434N/0930E).

- **FORECAST**

Small-scale breeding will continue early in the forecast period near Adrar but should end soon near Illizi. New adults, as well as any other adults that may be present in the central Sahara, may concentrate in the few areas that remain green and gradually move

south towards the summer breeding areas in the northern Sahel. This movement is not expected to be significant.

Morocco

- **SITUATION**

During the first decade of May, a solitary hopper and a mature adult were seen south of the Atlas Mountains near Wadi Ziz and the Algerian border at Talekhnafissine (3055N/0357W) where adults were seen copulating in early April. No locusts were reported elsewhere in the country.

- **FORECAST**

Locust numbers will decline as vegetation dries out in the spring breeding areas. No significant developments are likely.

Libyan Arab Jamahiriya

- **SITUATION**

No reports were received during May.

- **FORECAST**

Low numbers of hoppers and adults may be present in areas of previous breeding near Ghat.

Tunisia

- **SITUATION**

No surveys were carried out and no locusts were reported during May.

- **FORECAST**

No significant developments are likely.

CENTRAL REGION

Sudan

- **SITUATION**

No surveys were carried out and no locusts were reported during May.

- **FORECAST**

Isolated adults are expected to appear in a few places in the summer breeding areas and breed on a limited scale once seasonal rains commence.

Eritrea

- **SITUATION**

No locusts were seen during a survey carried out on the Red Sea coastal plains from Massawa to Mehimet from 5 to 15 May except for one solitary adult near Shelshela (1553N/3906E).



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• **FORECAST**

No significant developments are likely.

Ethiopia

• **SITUATION**

No surveys were carried out and no locusts were reported during April and May.

• **FORECAST**

No significant developments are likely.

Djibouti

• **SITUATION**

No locusts were reported during May.

• **FORECAST**

No significant developments are likely.

Somalia

• **SITUATION**

There was an unconfirmed report from travellers of locust adults on the northwestern coast west of Berbera near Geerisa (1022N/4434E) on 24 May.

• **FORECAST**

Isolated adults may be present in a few places on the northwest coast between Djibouti and Berbera.

Egypt

• **SITUATION**

No surveys were carried out and no locusts were reported during May.

• **FORECAST**

No significant developments are likely.

Saudi Arabia

• **SITUATION**

No locusts were seen during surveys carried out along the Red Sea coastal plains and in the interior during May.

• **FORECAST**

Isolated adults may be present on the Red Sea coast near Jizan and could breed on a limited scale in areas of recent rainfall.

Yemen

• **SITUATION**

No surveys were carried out and no locusts were reported during May.

• **FORECAST**

Isolated adults may be present and could persist

and breed on a limited scale in any areas that remain green on the coastal plains of the Red Sea and Gulf of Aden. Isolated adults could start to appear in the summer breeding areas in the interior between Marib and Shabwah in areas where rainfall occurs.

Oman

• **SITUATION**

No locusts were seen during surveys carried out in May along the Batinah coastal plains of the north and on the Musandam Peninsula, and no locusts were reported from other regions in the country.

• **FORECAST**

No significant developments are likely.

Bahrain, Iraq, Israel, Jordan, Kenya, Kuwait, Lebanon, Palestine, Qatar, Syria, Tanzania, Turkey, UAE and Uganda

• **FORECAST**

No significant developments are likely.

EASTERN REGION

Iran

• **SITUATION**

No locusts were seen during a joint survey in coastal and interior areas in the southeast during the second half of April. During May, no locusts were seen during surveys carried out on the coast near Jask.

• **FORECAST**

No significant developments are likely.

Pakistan

• **SITUATION**

No locusts were seen during surveys carried out in the spring breeding areas in Baluchistan in the second half of April and first half of May.

• **FORECAST**

Isolated adults may start to appear in a few places in the summer breeding areas at the end of the forecast period.

India

• **SITUATION**

No locusts were seen during surveys carried out in Rajasthan and Gujarat during May.

• **FORECAST**

Isolated adults may start to appear in a few places in the summer breeding areas at the end of the forecast period.

Afghanistan

• **SITUATION**

No reports received.

• **FORECAST**

No significant developments are likely.



Announcements

Locust reporting. During locust outbreaks, upsurges and plagues, RAMSES output files with a brief interpretation should be sent twice/week and affected countries are encouraged to prepare decadal bulletins summarizing the situation. During recession periods, countries should report at least once/month and send RAMSES data with a brief interpretation. All information should be sent by e-mail to the FAO/ECLO Desert Locust Information Service (eclo@fao.org). Information received by the end of the month will be included in the FAO Desert Locust 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.

Desert Locust Mapper. The Locust Group has launched an updated version of the Desert Locust Mapper that allows users to access locust data, both historical and current, and display swarm, band, hopper and adult infestations on maps at different scales. See: www.fao.org/ag/locusts (Mapper)

eLocust2. FAO has developed a new version of eLocust in collaboration with affected countries and the French Space Agency (CNES/Novacom) that allows field officers to enter survey and control data directly in the field and transmit it in real time via satellite to their national locust centre. Data can also be downloaded to a PC and visualized on GoogleEarth. The software is in both English and French. FAO DLIS is currently distributing units to affected countries with the goal of becoming operational by this summer. Photos and more information are available at: www.fao.org/ag/locusts/en/activ/DLIS/index.html

Desert Locust warning levels. DLIS has initiated an experimental colour-coded scheme to indicate the seriousness of the current Desert Locust situation: green for *calm*, yellow for *caution* and red for *danger*. The scheme has been applied to the Locust Watch web page and the monthly bulletin's header. The levels indicate the perceived risk or threat of current Desert Locust infestations to crops and appropriate actions are suggested for each level. Your feedback on the usefulness of this scheme and any suggested improvements is welcome.

New information on Locust Watch. New material is available on the Locust Group's web page, Locust Watch (www.fao.org/ag/locusts):

- Report of the 13th EMPRES/CR Liaison Officers meeting (English) – Publications section

- EMPRES/CRC regional workshop on RAMSES, eLocust2 and remote sensing – Activities section
- Report of the 4th EMPRES/WR Liaison Officers meeting (French) – Publications section
- Report of the 1st EMPRES/WR Steering Committee (French) – Publications section

2006 events. The following meetings are tentatively scheduled:

- **SWAC.** Advanced training for National Locust Information Officers (RAMSES/eLocust2), Jodhpur (India), 12-16 June
- **EMPRES/WR.** Advanced training for National Locust Information Officers (RAMSES/eLocust2), Agadir (Morocco), 3-7 July
- **DLCC.** 38th Session, Rome, 11-15 September
- **EMPRES/CR.** 14th Liaison Officer Meeting, Muscat (Oman), 11-15 November
- **SWAC.** 25th Session, Tehran (Iran), 20-23 November
- **EMPRES/WR and CLCPRO.** 5th EMPRES Liaison Officer Meeting and 2nd Session CLCPRO, Nouakchott (Mauritania), December



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



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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.

WARNING LEVELS

GREEN

- Calm. No threat to crops. Maintain regular surveys and monitoring.

YELLOW

- Caution. Potential threat to crops. Increased vigilance is required; control operations may be needed.

RED

- Danger. Significant threat to crops. Intensive survey and control operations must be undertaken.

REGIONS

WESTERN

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

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

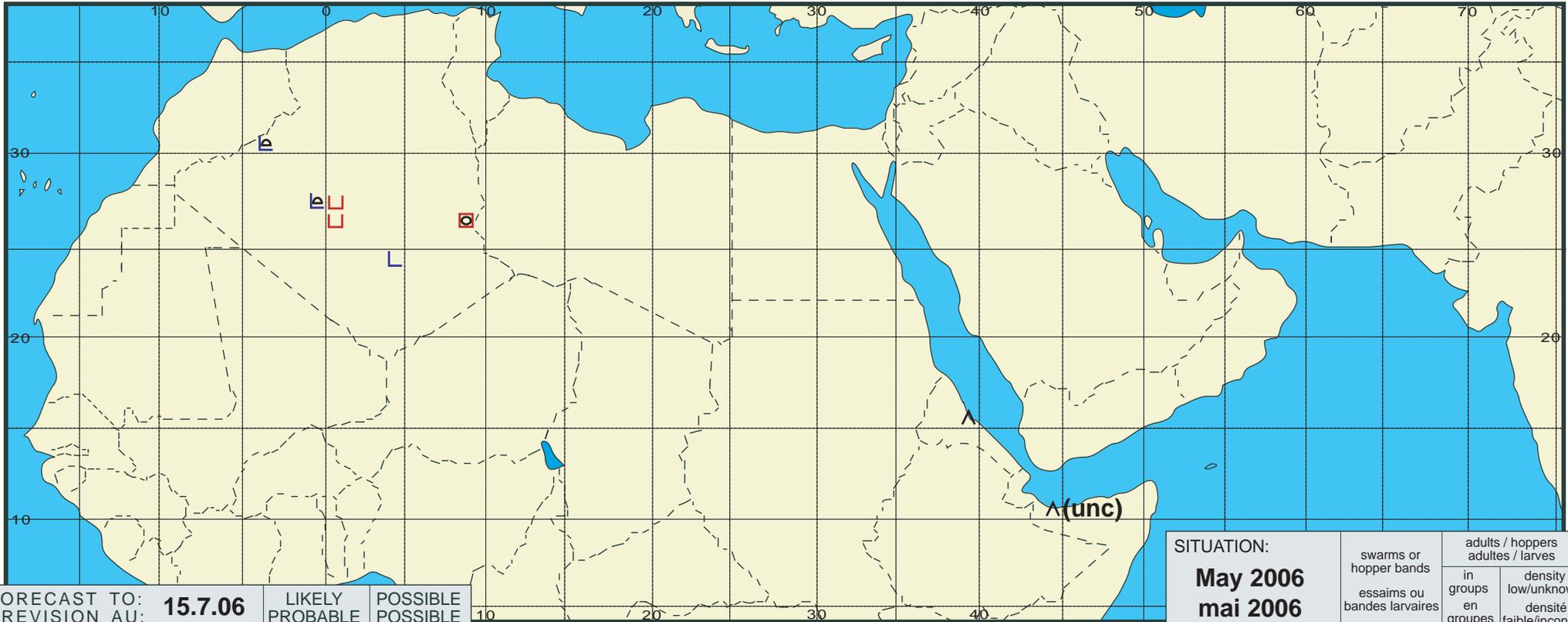
- locust-affected countries in South-West Asia: Afghanistan, India, Iran and Pakistan.



Desert Locust Summary

Criquet pèlerin - Situation résumée

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FORECAST TO: PREVISION AU:	LIKELY PROBABLE	POSSIBLE POSSIBLE
15.7.06		
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: May 2006 mai 2006	swarms or hopper bands	adults / hoppers	
	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)			