

DESERT LOCUST BULLETIN

FAO Emergency Centre for Locust Operations



No. 330

(3 April 2006)



General Situation during March 2006 Forecast until mid-May 2006

The Desert Locust situation remained calm during March. Low numbers of solitarious adults were present in parts of Northwest Africa and small-scale breeding occurred in northwest Mauritania. Limited control operations were undertaken against solitarious adults that were breeding in Algeria and Libya. In the Central Region, locusts declined along the Red Sea coast as vegetation dried out. No locusts were reported in the spring breeding areas in western Pakistan and southeastern Iran. During the forecast period, locust numbers may increase slightly in northern Mauritania as a result of small-scale breeding.

Western Region. Scattered adults were maturing in northwest and northern Mauritania during March, and small-scale breeding was in progress in one area. More breeding could occur in April and extend to the north if ecological conditions remain favourable but locust numbers are expected to remain low. Isolated adults were present in southern Western Sahara and in southwest Morocco where breeding may take place in the coming weeks. Ground teams treated 30 ha of copulating adults in eastern Algeria and 150 ha of solitarious and *transiens* adults that were forming a few small groups and laying eggs in southwest Libya. Limited breeding could continue in a few places of both countries during the forecast period. Isolated adults may be present in a few places in northern Mali and Niger.

Central Region. Locusts declined in the winter breeding areas along the Red Sea coast in Sudan and only isolated adults remained in the Tokar Delta by the end of March. No locusts were reported elsewhere in the region, and no significant developments are expected during the forecast period.

Eastern Region. No locusts were reported in the region although there is a possibility that scattered adults are present in parts of the spring breeding areas in Baluchistan, western Pakistan. If ecological conditions are favourable, small-scale breeding could occur in a few places 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 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 March 2006

Although little rain fell in Northwest Africa, ecological conditions remained favourable in parts of Mauritania, Western Sahara, Algeria and Libya. Good rains fell in the spring breeding areas in Saudi Arabia and vegetation was drying out along both sides of the Red Sea. Dry conditions prevailed in the spring breeding areas in western Pakistan and southeastern Iran.

In the **Western Region**, dry weather prevailed in most countries during March. During the first half of the month, light rain may have fallen in southern Algeria (on the 5th), in northeast Niger (8-9th), in southern Libya (9-10th), in the Tibesti Mountains in northwest Chad (14th) and in southeast Libya near the Sudan/Chad border. During the second half of March, light rain fell along the Atlantic coast in Morocco between Sidi Ifni and Agadir from the 19th to the 21st and in southeast Libya at Kufra Oasis. Even though little rain fell during March, ecological conditions were favourable for locust survival and breeding in parts of Mauritania in the northwest (Dakhlet Nouadhibou) and in the north (Zouerate to Bir Moghreïn), in the northern Western Sahara between Smara and Laayoune, along some places of the Draa Valley in southwest Morocco, near Tamanrasset and Illizi in southern and eastern Algeria, and near Ghat in southwest Libya.

In the **Central Region**, good rains fell in parts of the Arabian Peninsula at the end of March. Heavy rain was reported in the spring breeding areas in central Saudi Arabia at Gassim, Hail and Riyadh, moderate to heavy rains fell in the Marib, Al-Jawf and Shabwah regions in the interior of Yemen, and light rain fell on the edge of the Empty Quarter near Sharurah, Saudi Arabia. Lighter rain fell at mid-month along parts of the Red Sea coast in Yemen and perhaps in Eritrea between Massawa and Tio. Ecological conditions were improving in the interior of Saudi Arabia but vegetation was drying out on the coastal plains on both sides of the Red Sea. In Djibouti, vegetation was becoming green along the coast between Tadjourah and Obock, and in northern Oman along the Batinah coast.

In the **Eastern Region**, unusual rains fell along the Indo-Pakistan border in mid-March. Most of the rain fell in Rajasthan, India near Barmer (54 mm), Jaisalmer (23 mm) and Bikaner (17 mm), and in adjacent areas of southeast Pakistan near Chhor (12 mm). In the spring breeding areas of Baluchistan, Pakistan, light rain fell in the north at Dalbandin and Nokkundi, and on the coast near Pasni and Jiwani. In the adjacent areas in southeast Iran, light rain fell at Saravan. Consequently, ecological conditions were improving in parts of the spring breeding areas in Pakistan and Iran.



Area Treated

During March, limited ground control operations were conducted in two countries:

Algeria	30 ha
Libya	150 ha



Desert Locust Situation and Forecast

(see also the summary on page 1)

WESTERN REGION

Mauritania

• SITUATION

During March, scattered immature and mature adults were present in the northwest, mainly in the Dakhlet Nouadhibou region where isolated fourth and fifth instar hoppers were also reported, and to a lesser extent in northern Inchiri and near Tmeimchat (2119N/1420W). In the north (Tiris-Zemmour), low numbers of solitary adults were scattered between Zouerate (2244N/1221W), Ghallaman (2410N/0952W) and Bir Moghreïn (2510N/1135W). By mid-month, adult densities had increased in a few places near Zouerate to 100-380 adults/ha and some adults were seen copulating. In Dakhlet Nouadhibou, additional hatching occurred during the second decade and low numbers of solitary hoppers of all instars were present in a few places.

• FORECAST

Low numbers of solitary adults are expected to persist in parts of the northwest and north. Small-scale breeding is likely to continue in the northwest and may commence in the north in areas where ecological conditions remain favourable. Consequently, locust numbers will increase gradually in Dakhlet Nouadhibou, Inchiri, southwest Adrar and Tiris-Zemmour regions.

Mali

• SITUATION

No locusts were reported during March.

• FORECAST

Isolated adults may be present in a few places in the Adrar des Iforas.

Niger

• SITUATION

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

• FORECAST

Isolated adults may be present in a few places in the Air Mountains.

Chad

• SITUATION

A late report indicated that no surveys were carried out and no locusts were reported during February.

• FORECAST

No significant developments are likely.

Senegal

• SITUATION

No locusts were reported up to 25 March.

• 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 March, solitary immature and mature adults were present at a few places near Illizi (2630N/0825E) at densities of up to 200 adults/ha. At mid-month, ground control operations treated 30 ha of copulating adults at one location. No locusts were seen during surveys near Tamanrasset, west of Djanet and near the Tunisian/Libyan border.

• FORECAST

Low numbers of adults are likely to persist in a few places in the central and eastern Sahara, and low numbers of adults may be present in the west near Tindouf. Small-scale breeding could take place in those areas where conditions are favourable.

Morocco

• SITUATION

During March, a few solitary adults were seen near Tan-tan (2827N/1109W) and nomads reported isolated adults in the southern part of Western Sahara near Bir Anzarane (2353N/1431W), near the coast

south of Dakhla (2343N/1557W) and in the Adrar Settouf in W. Jalwa (2152N/1543W).

• FORECAST

Scattered adults are expected to persist and breed on a small-scale in parts of Western Sahara and the southwestern extreme of the Draa Valley.

Libyan Arab Jamahiriya

• SITUATION

During March, scattered solitary adults persisted in the southwest near Ghat (2459N/1011E). Ground control teams treated 150 ha of solitary adult groups mixed with a few *transiens*, at densities of 2-3 adults/m², that were seen copulating and laying in Wadi Intalug (2607N/0932E) on 21-22 March.

• FORECAST

Hatching is expected to commence early in the forecast period near Ghat and hoppers could form a few small groups.

Tunisia

• SITUATION

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

• FORECAST

No significant developments are likely.

CENTRAL REGION

Sudan

• SITUATION

During March, solitary adults persisted and continued to mature in the Tokar Delta but locust numbers were much lower than in February. By the end of the month, only isolated adults remained in a few places in Tokar and no further adults were seen elsewhere along the Red Sea coastal plains. No locusts were seen further north along the Egyptian border or in W. Diib during a Joint Survey with Egypt.

• FORECAST

No significant developments are likely.

Eritrea

• SITUATION

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

• FORECAST

Isolated locusts may be present in a few places that remain green on the Red Sea coastal plains north of Massawa.



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Ethiopia

- SITUATION

No locusts were seen during surveys carried out on 16-17 March in the Somali region.

- FORECAST

No significant developments are likely.

Djibouti

- SITUATION

No locusts were reported during March.

- FORECAST

No significant developments are likely.

Somalia

- SITUATION

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

- FORECAST

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

Egypt

- SITUATION

During March, no locusts were seen during a joint Egyptian/Sudanese survey carried out on the Red Sea coast and in subcoastal areas along their common border. No locusts were seen during other surveys undertaken along Lake Nasser, in the Western Desert at Sh. Oweinat and on the Sinai Peninsula.

- FORECAST

No significant developments are likely.

Saudi Arabia

- SITUATION

No locusts were seen during March along the central Red Sea coastal plains and in the spring breeding areas in the interior.

- FORECAST

No significant developments are likely.

Yemen

- SITUATION

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

- FORECAST

Isolated adults may be present and could persist in any areas that remain green on the coastal plains of the Red Sea and Gulf of Aden. Small-scale breeding

could occur in areas of recent rainfall.

Oman

- SITUATION

No locusts were seen during surveys carried out in March in the interior and on the coastal plains of the north.

- FORECAST

Isolated adults may appear on the Batinah coast and perhaps in the northern interior where they could breed on a small-scale in areas of recent rainfall.

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 surveys carried out on the southern coastal plains near Chabahar (2517N/6036E) and in the interior near Iranshahr (2715N/6141E) on 13-14 March.

- FORECAST

Low numbers of adults may be present in coastal and interior areas adjacent to Baluchistan, Pakistan. If so, small-scale breeding could take place if rainfall occurs.

Pakistan

- SITUATION

During the second half of February, no locusts were seen during surveys carried out in coastal and interior areas of Baluchistan.

No locust reports were received during March.

- FORECAST

Scattered adults are likely to be present in parts of Baluchistan, mainly along the coast and in the Shooli area. Small-scale breeding will take place if rainfall occurs.

India

- SITUATION

No locusts were seen during surveys carried out in Rajasthan during the second half of February and all of March.

- FORECAST

No significant developments are likely.

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/ECLD Desert Locust Information Service (eclod@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.

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 fully 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 on the Locust Watch web page to indicate the seriousness of the current Desert Locust situation: green for *calm*, yellow for *caution* and red for *danger*. 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

2006 events. The following meetings are tentatively scheduled:

- **SWAC.** 11th Desert Locust joint survey in the spring breeding areas of Iran and Pakistan, 1 April – 1 May

- **FAO/WMO.** Regional workshop on meteorological information for locust control – English-speaking countries, Muscat (Oman), 8-12 April
- **FAO/World Bank.** Pesticide management workshop, Bamako (Mali), 15-18 May
- **CRC.** 25th Session, Doha (Qatar), 28 May – 1 June
- **EMPRES/WR.** Advanced training for National Locust Information Officers (RAMSES/eLocust2), Agadir (Morocco), 19-23 June
- **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



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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.

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

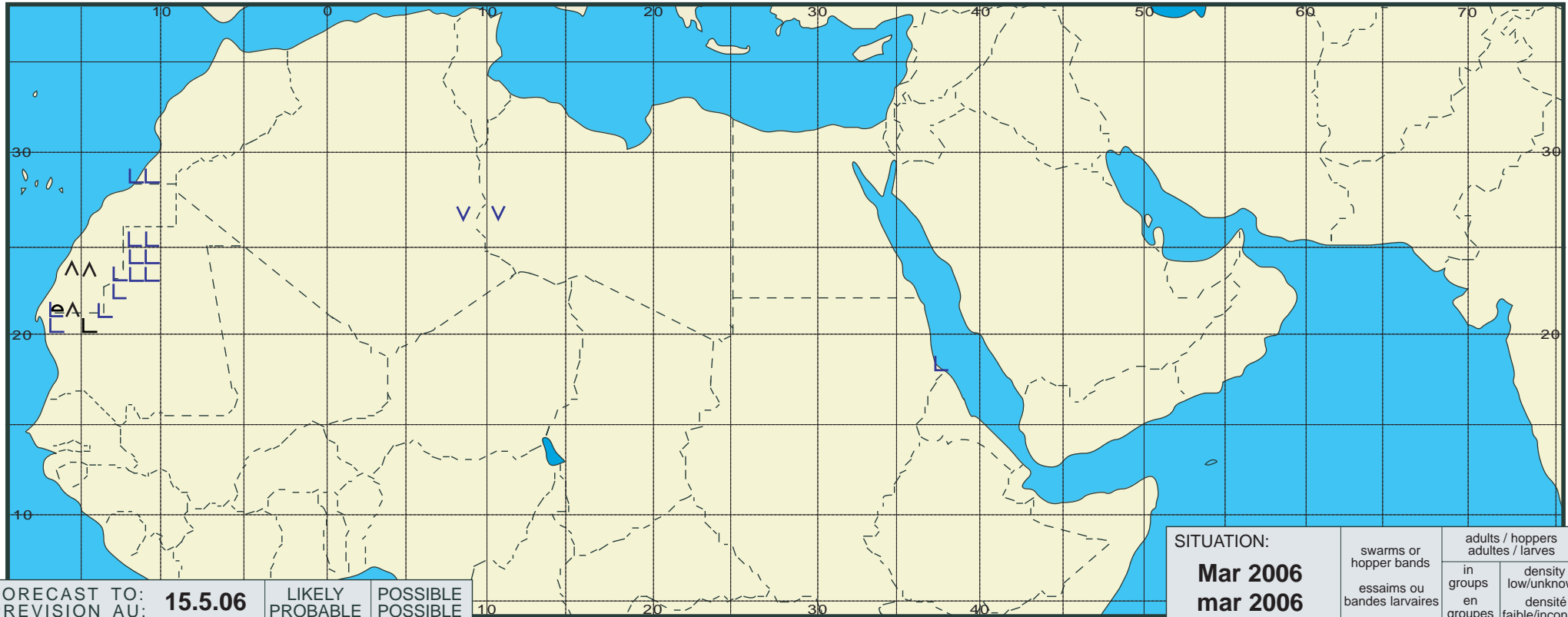
- locust-affected countries in South-West Asia: Afghanistan, India, Iran and Pakistan.



Desert Locust Summary

Criquet pèlerin - Situation résumée

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FORECAST TO: PREVISION AU:	LIKELY PROBABLE	POSSIBLE POSSIBLE
15.5.06		
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: Mar 2006 mar 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)			