

warning level: **CALM**

DESERT LOCUST BULLETIN

FAO Emergency Centre for Locust Operations



No. 377

(3 Mar 2010)



General Situation during February 2010 Forecast until mid-April 2010

The Desert Locust situation continued to remain calm during February in all countries primarily due to a lack of rainfall and poor ecological conditions. Only low numbers of solitarious locusts were reported in parts of Mauritania, Libya, Sudan and Saudi Arabia. Nevertheless, national teams continue to undertake ground surveys and monitor the situation on a regular basis. During the forecast period, scattered adults are expected to persist in the above-mentioned countries. If more rains fall, small-scale breeding could occur in the spring breeding areas of northwest Africa and southwest Asia but locust numbers will remain below threatening levels and no significant developments are expected.

Western Region. The locust situation remained calm during February throughout the Region. Scattered solitarious adults and a few hoppers were present in northwest and northern Mauritania where low numbers of locusts will persist in those areas that remain green during the forecast period. In Libya, some scattered adults were seen laying eggs in the southwest near the Algerian border. Low numbers of adults may also be present and will persist in parts of the Adrar des Iforas in northern Mali and the Air Mountains in Niger but surveys could not be undertaken to confirm this. No locusts were reported elsewhere in the Region.

Central Region. The locust situation remained calm during February. Rainfall along both sides of the Red Sea has been unusually poor this winter and, consequently, only limited breeding occurred in a few coastal areas of Sudan and Saudi Arabia. No locusts were reported elsewhere in the Region. Unless further rains fall, locust numbers will decline along both sides of the Red Sea and Gulf of Aden during the forecast period, and no significant developments are likely.

Eastern Region. No locusts were reported in the Region during February. Good rains fell in the spring breeding areas along the coast of southeast Iran and western Pakistan that could lead to small-scale breeding during the forecast period. Regular surveys are recommended in both countries to monitor the situation.

The FAO Desert Locust Bulletin is issued every month by the Desert Locust Information Service, AGP Division (Rome, Italy). It is supplemented by Alerts and Updates during periods of increased Desert Locust activity. All products are distributed by e-mail and made available on the Internet.

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Weather & Ecological Conditions in February 2010

Ecological conditions in the winter breeding areas remained generally unfavourable for the fifth consecutive month because of poor rainfall. Conditions are expected to improve in the spring breeding areas in southeastern Iran and western Pakistan from good rains that fell in February.

In the **Western Region**, no significant rain fell in the Desert Locust breeding areas during February. Consequently, mainly dry conditions persisted except in parts of northwest and northern Mauritania where vegetation was sufficiently green to allow locusts to survive in a few places. Smaller patches of green vegetation may be present in a few limited areas of the Adrar des Iforas in northern Mali and the Air Mountains in Niger. In Northwest Africa, moderate rains fell south of the Atlas Mountains along the Algerian/Moroccan border, causing flooding in some wadis. In Morocco, annual vegetation remained green on the southern and southeastern sides of the Atlas Mountains in the Ziz-Ghris Valley and near Figuig and the Algerian border. Small patches of green vegetation were present in the Western Sahara near Aousserd. Heavier rains fell on the northern side of the Atlas Mountains in Morocco but these have no impact on the locust situation. In Algeria, ecological conditions were favourable for breeding in parts of the central and western Sahara near Adrar, southwest of Bechar and near Tindouf.

In the **Central Region**, no significant rain fell along the western side of the Red Sea during February. Consequently, ecological conditions were not favourable for breeding along the coast of Egypt, Sudan and Eritrea. In Saudi Arabia, light rains fell in the interior near Buraydah and Riyadh in early February and on the Red Sea coast between Jeddah and Qunfidah at mid-month. Vegetation was green and ecological conditions were favourable for breeding. In Yemen, light rain fell during the second and fourth weeks in parts of the south in Lahij, and in the summer breeding areas in the interior of Shabwah and Hadhramaut. Vegetation was green in a few places near Aden but was dry elsewhere, including along the Red Sea coast. In Oman, light

to moderate rains fell at times in the north during early and late February. Consequently, ecological conditions became favourable for breeding in parts of the northern coast and interior regions of Buraimi, Dakhliya, and Sharqiya. Light rains fell in eastern Ethiopia in late February near Dire Dawa and Jijiga, extending to parts of the plateau and escarpment in northern Somalia. Ecological conditions remained dry in the winter breeding areas on the coastal plains in northwestern Somalia.

In the **Eastern Region**, good rains fell in the spring breeding areas along the coast of southeast Iran and western Pakistan in February. Consequently, ecological conditions were improving between Minab, Iran and Pasni, Pakistan and vegetation was becoming green. Light rains also fell at the end of the month in parts of the Jaz Murian Basin in the interior of southeastern Iran.



Area Treated

No control operations were reported during February.



Desert Locust Situation and Forecast

(see also the summary on page 1)

WESTERN REGION

Mauritania

• SITUATION

During February, small-scale breeding continued in parts of the northwest and north where mainly isolated late instar solitary hoppers were present in a few places near Akjoujt (1945N/1421W), Oujeff (2003N/1301W), and Zouerate (2244N/1221W), mixed with scattered solitary immature and mature adults at densities of less than 100 adults/ha. Scattered adults also persisted near Ouadane (2056N/1137W).

• FORECAST

Low numbers of solitary adults will persist in parts of Inchiri, southwest Adrar and southern Tiris-Zemmour. Limited breeding could occur in areas that receive rainfall during the forecast period but locust numbers will remain below threatening levels. During periods of warm southerly winds, scattered adults may move towards the north.

Mali

• SITUATION

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

• **FORECAST**

Low numbers of adults are likely to be present and will persist in parts of the Adrar des Iforas.

Niger

• **SITUATION**

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

• **FORECAST**

Low numbers of adults are expected to persist in the east and southeast of the Air Mountains where they will mature and could breed on a small-scale in areas that remain favourable, especially if more rains fall.

Chad

• **SITUATION**

No reports were received during February.

• **FORECAST**

No significant developments are likely.

Senegal

• **SITUATION**

No reports were received during February.

• **FORECAST**

No significant developments are likely.

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

• **FORECAST**

No significant developments are likely.

Algeria

• **SITUATION**

No locusts were seen during surveys carried out in February in the west between Tindouf (2741N/0811W) and the Mauritanian border, and in the central Sahara near Adrar (2753N/0017W), and between In Salah (2712N/0229E) and Tamanrasset (2250N/0528E).

• **FORECAST**

Low numbers of locusts may be present in parts of the central and southern Sahara that could move northwest towards the Atlas Mountains. Small-scale breeding could occur in areas of recent rainfall near Bechar and the Moroccan border.

Morocco

• **SITUATION**

No locusts were reported during February.

• **FORECAST**

Low numbers of adults are likely to be present on the southern and southeastern side of the Atlas Mountains where they could breed on a small-scale if rainfall occurs.

Libyan Arab Jamahiriya

• **SITUATION**

On 26-28 February, isolated and scattered solitary adults were seen in the southwest near Ghat (2459N/1011E). Some of the adults were copulating and laying eggs.

• **FORECAST**

Limited hatching will occur near Ghat by mid March. Small-scale breeding could continue in the west between Ghat and Ghadames if rains occur during the forecast period.

Tunisia

• **SITUATION**

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

• **FORECAST**

No significant developments are likely.

CENTRAL REGION

Sudan

• **SITUATION**

During February, isolated mature solitary adults persisted in a few places on the Red Sea coast near Karora (1745N/3820E) and the Eritrean border, and at one place on the coast north of Tokar Delta. Further north near the Egyptian border, isolated mature solitary adults mixed with third to fifth instar solitary hoppers were present on the coast near Oseif (2146N/3651E) and in Wadi Diib northwest of Sufiya (2119N/3613E).

• **FORECAST**

Limited fledging will occur in the north during the first half of March. Thereafter, locust numbers will decline unless further rainfall occurs, and no significant developments are likely.

Eritrea

• **SITUATION**

No locusts were seen during a survey carried out in the last week of February on the central Red Sea coast between Sheib (1551N/3903E) and Afabet (1612N/3841E).

• **FORECAST**

No significant developments are likely.



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Ethiopia

- SITUATION

No surveys were carried out and no locusts were reported in February.

- FORECAST

No significant developments are likely.

Djibouti

- SITUATION

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

- FORECAST

No significant developments are likely.

Somalia

- SITUATION

No locusts were seen during a survey carried out on the northwest coastal plains between the Djibouti border and Berbera (1028N/4502E) on 17-22 February.

- FORECAST

No significant developments are likely.

Egypt

- SITUATION

No locusts were seen during surveys carried out in February on the Red Sea coast and nearby subcoastal areas between Hurgada (2717N/3347E) and the Sudanese border, along the western shore of Lake Nasser between Abu Simbel (2219N/3138E) and Tushka (2247N/3126E), and in the Western Desert southwest of Kharga (2525N/3034E).

- FORECAST

No significant developments are likely.

Saudi Arabia

- SITUATION

During February, low numbers of scattered fledglings and mature solitary adults were present on the Red Sea coast near Rabigh (2247N/3901E). Some of the adults were seen laying eggs in two areas, and isolated fourth instar hoppers were also reported nearby.

- FORECAST

Limited hatching will occur in early March near Rabigh and hoppers will fledge by the end of the forecast period. Small-scale breeding could occur in areas of recent rain on the central Red Sea coast

between Jeddah and Qunfidah but locust numbers will remain low.

Yemen

- SITUATION

No locusts were seen during surveys carried out on the coast west of Aden (1250N/4503E) on 1-2 February.

- FORECAST

Low numbers of locusts are likely to be present and will persist along parts of the Red Sea coastal plains. Breeding is unlikely to occur unless further rains fall.

Oman

- SITUATION

No locusts were seen during surveys carried out in February along the northern Batinah coast, in the interior of Dhahira, Dakhliya and Sharqiya, and in the southern region of Dhofar.

- FORECAST

Low numbers of adults could appear and breed on a small scale in areas of recent rainfall in the northern interior and coastal areas.

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

- FORECAST

No significant developments are likely.

EASTERN REGION

Iran

- SITUATION

No locusts were seen during surveys carried out in February on the southeast coast between Bander-e Lengheh (2634N/5452E) and Chabahar (2517N/6036E).

- FORECAST

Low numbers of adults are likely to appear in the spring breeding areas along the southeast coast and breed on a small scale in areas of recent rainfall.

Pakistan

- SITUATION

No locusts were reported during the first fortnight of February.

- Forecast

Low numbers of adults will appear in the spring breeding areas along the coast of Baluchistan and breed on a small scale in areas of recent rainfall.

India

- SITUATION

No locusts were seen during intensive surveys carried out in February in the summer breeding areas in Rajasthan and Gujarat.

- **FORECAST**

No significant developments are likely.

Afghanistan

- **SITUATION**

No reports received.

- **FORECAST**

No significant developments are likely.



Announcements

Desert Locust warning levels. A colour-coded scheme indicates the seriousness of the current Desert Locust situation: green for *calm*, yellow for *caution*, orange for *threat* and red for *danger*. The scheme is applied to the Locust Watch web page and to 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.

Locust reporting. During calm (green) periods, countries should report at least once/month and send RAMSES data with a brief interpretation. During caution (yellow), threat (orange) and danger (red) periods, often associated with locust outbreaks, upsurges and plagues, RAMSES output files with a brief interpretation should be sent at least twice/week within 48 hours of the latest survey. Affected countries are also encouraged to prepare decadal bulletins summarizing the situation. All information should be sent by e-mail to the FAO/ECLO Desert Locust Information Service (ecl@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.

Google group. FAO DLIS has established a Google group for national locust information officers to exchange opinions and share experiences regarding data management and analysis, GIS, eLocust2, eLocust2Mapper and satellite imagery. Interested information officers should contact DLIS (ecl@fao.org) for details.

MODIS imagery. Columbia University's International Research Institute for Climate and Society (IRI) provides 16-day 250-metre resolution MODIS imagery as well as daily and decadal rainfall imagery for monitoring breeding conditions in the Desert Locust recession area. These products can be downloaded in different formats suitable for GIS

at: http://iridl.ldeo.columbia.edu/maproom/.Food_Security/.Locusts/index.html. The site is available in English and French. Address comments and questions to Pietro Ceccato (pceccato@iri.columbia.edu).

New information on Locust Watch. Recent additions to the web site (www.fao.org/ag/locusts) are:

- **Desert Locust situation updates.** Archives Section – Briefs
- **Desert Locust risk map update.** Archives Section – Risk maps

Locust Watch in Caucasus and Central Asia. The Locust Group at FAO has launched a new website (www.fao.org/ag/locusts-CCA/en/index.html) that contains information in English and Russian on three locust pests in the Caucasus and Central Asia, the current situation, potential impact on food security, and national and regional level activities.

2010 events. The following activities are scheduled or planned:

- **EMPRES/WR Phase 2.** Planning meeting, Dakar (8-12 March)
- **SWAC/CRC Locust Information Officers.** 3rd Inter-regional workshop on the use and improvement of RAMSES and eLocust2, Cairo (18-19 April)
- **SWAC/CRC Master Trainers.** 2nd Master Trainers training course, Iran (8-13 May)
- **CLCPRO.** 6th session of Executive Committee, Ouagadougou (28-30 June)
- **CRC.** 31st session of Executive Committee and 27th session of Commission, Beirut (20-24 Sep)
- **SWAC.** 27th session, Islamabad (Dec)



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).



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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.

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.

ORANGE

- Threat. Threat to crops. Survey and control operations must be undertaken.

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

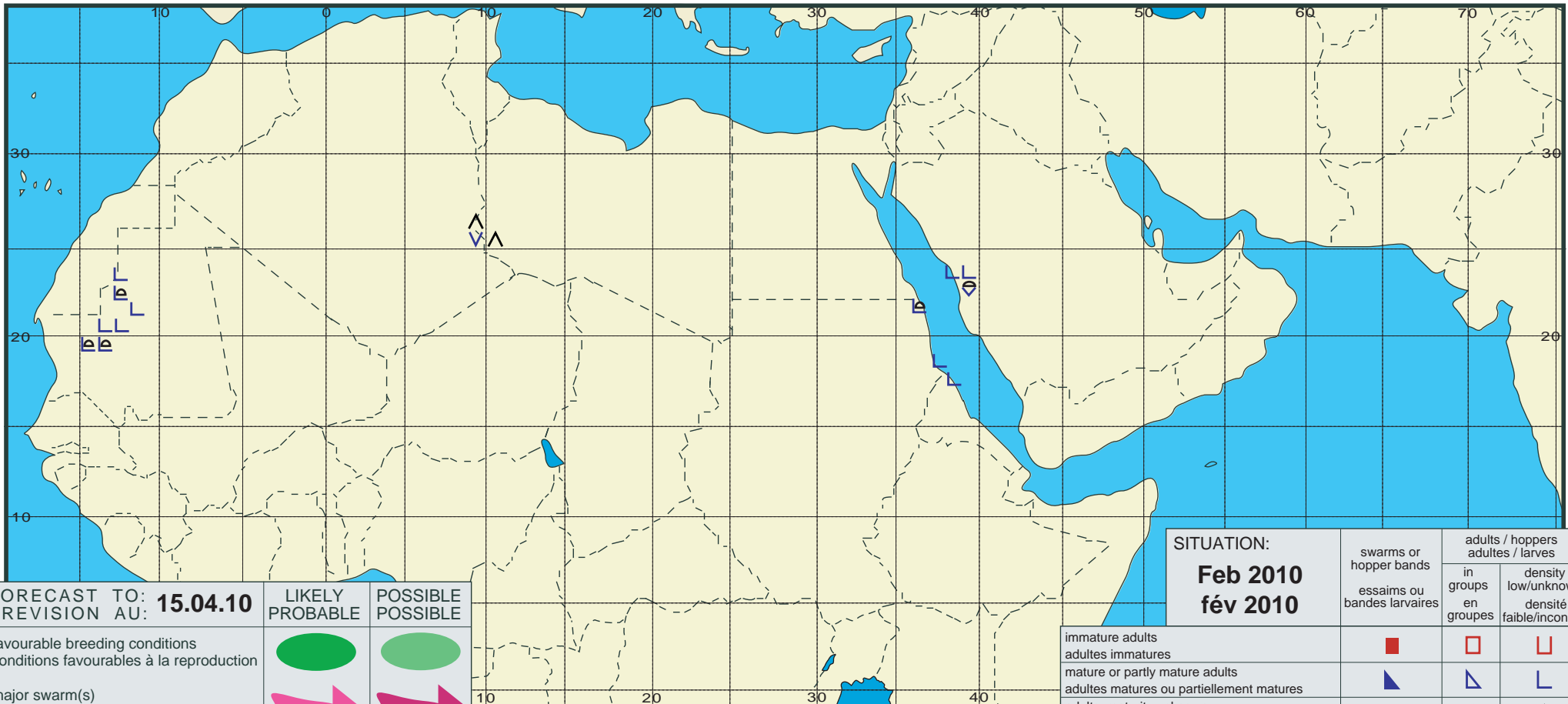
- locust-affected countries in South-West Asia: Afghanistan, India, Iran and Pakistan.



Desert Locust Summary

Criquet pèlerin - Situation résumée

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FORECAST TO: PREVISION AU: 15.04.10	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: Feb 2010 fév 2010	swarms or hopper bands essaims ou bandes larvaires	adults / hoppers adultes / larves	
		in groups en groupes	density low/unknown 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)			