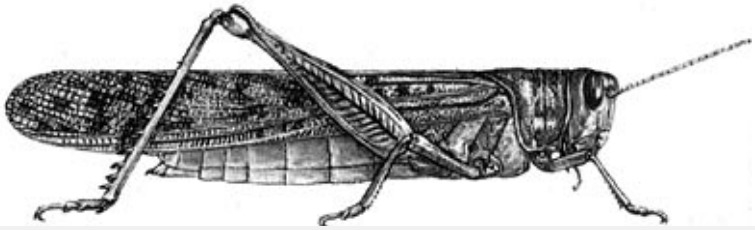


DESERT LOCUST BULLETIN

FAO Emergency Centre for Locust Operations **No. 296**

(3 June 2003)

General Situation during May 2003 Forecast until mid-July 2003

The Desert Locust situation remained calm during May because of poor rainfall and unfavourable ecological conditions. Only isolated locusts were reported in southwestern Libya, northern Mali, southern Egypt and northern Oman. By the end of the month, there were indications that good rains had fallen in the summer breeding areas in Sudan and perhaps in the northern parts of Niger and Chad. Breeding conditions were also reported to be improving in northern Somalia and eastern Ethiopia. During the forecast period, rains are likely to commence in the summer breeding areas in the Sahel in West Africa and Sudan and along the Indo-Pakistan border. If sufficient rainfall occurs, small-scale breeding is expected to take place in these areas. Nevertheless, no significant developments are expected.

Western Region. Ground control operations finished in southern **Algeria** against hopper groups in mid April. During a joint Algerian-Libyan border survey in late April and early May, no locusts were seen in Algeria and only low numbers of adults were present in adjacent areas of southwestern **Libya**. A few adults were present near Gao in **Mali**. Elsewhere, conditions were dry and unfavourable except in northern **Chad** where significant cloud activity occurred at the end of May for five days, suggesting that good rains may have fallen in some places. During the forecast period, small-scale breeding is likely to occur in the summer breeding areas in the Sahel once the seasonal rains start. Nevertheless, locust numbers will remain well below threatening levels.

Central Region. Only a few Desert Locust mixed with African Migratory Locust were reported breeding in an agricultural scheme in southern **Egypt** during May. Although conditions were generally dry in the region during the month, good rains fell in the summer breeding areas in **Sudan** during the last week. Breeding conditions were also improving in northern **Somalia** and eastern **Ethiopia**. Consequently, small-scale breeding could occur in Sudan and northern Somalia during the forecast period. No locusts were reported elsewhere in the region except for an isolated hopper in northern **Oman**.

Eastern Region. Dry conditions prevailed throughout the region and no locusts were reported in May. During the forecast period, low numbers of adults are likely to appear and breed on a small scale in Rajasthan, **India** and in adjacent areas of **Pakistan** 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 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.
Telephone: +39 06 570 52420 (7 days/week, 24 hr)
Facsimile: +39 06 570 55271
E-mail: eclo@fao.org
Internet: www.fao.org
DLIS: www.fao.org/news/global/locusts/locuhome.htm

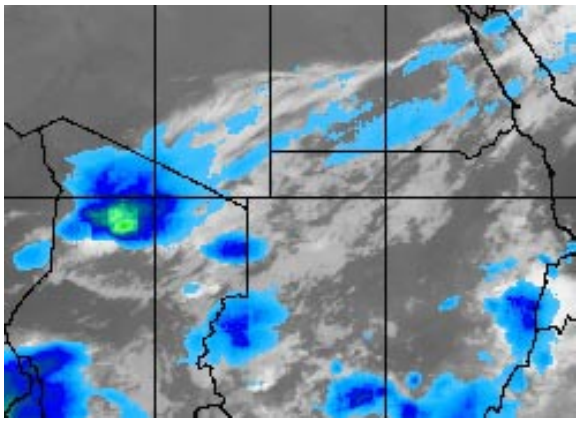
No. 296

DESERT LOCUST BULLETIN

Weather & Ecological Conditions in May 2003

Ecological conditions were dry and unfavourable for breeding throughout the Desert Locust recession area during May because of poor rainfall. By the end of the month, good rains had fallen in the summer breeding areas in Sudan and perhaps in northern Niger and Chad. Some rain also occurred in northern Somalia and eastern Ethiopia where breeding conditions were improving.

In the **Western Region**, vegetation was dry and breeding conditions were unfavourable in the breeding areas of central and southern Mauritania, northern Mali and Niger because of a lack of rainfall and hot northeasterly winds that prevailed during May. A joint survey along the Algerian-Libyan border between Djanet and Ghat indicated that the soil was dry and vegetation was drying out. Conditions were also unfavourable for breeding in Morocco south of the Atlas Mountains as well as in the extreme southwest. At the end of the month, a northerly surge of the Inter-Tropical Convergence Zone (ITCZ) reached 21N over Niger on the 29th and oscillated between 15N and 18N over Mali and Niger on 30-31 May. Light to moderate showers may have fallen in northern Chad on 27-31 May where there was significant cloud activity over Tibesti and Ennedi. On the 28th, similar clouds were seen over the southern Sahara in Algeria, extending from Tamanrasset to Ghat, Libya as well as in Niger from southern Tamesna to the Djado Plateau. Light rains were reported at Gao, Mali on the 31st.



A satellite image of estimated rainfall suggests that good rains may have fallen in northern Chad (Tibesti and Ennedi) and western (N. Darfur) and eastern (Kassala) Sudan on 31 May 2003. Heavier rainfall is indicated by dark colours.

In the **Central Region**, ecological conditions during most of May were dry and unfavourable in the summer breeding areas in Sudan. During the last week of the month, good rains fell in Northern Darfur, Northern Kordofan, Kassala and Khartoum (58 mm on the 24th). Breeding conditions are likely to improve in these areas in the coming weeks. In Egypt, light rain was reported in the Western Desert near Bahariya and Dakhla on 27-28. On the Red Sea coast, significant clouds were present over the coastal plains from north of Massawa, Eritrea to Aitarba, Sudan on 16 May and light rain may have occurred. Clouds persisted over eastern Ethiopia and northern Somalia during most of May. Light rain fell a few times on the coast near Berbera and on the escarpment between Boroma and Burao where green vegetation and favourable breeding conditions were reported east of Hargeisa. In eastern Ethiopia, vegetation was green near the Somali border because of good rains in late April. By mid month, southwesterly winds associated with the Indian monsoon became established over the Horn of Africa and continued for the remainder of May. In Saudi Arabia, moderate rains fell in the Asir Mountains during the second half of May and light rain fell in a few places of the interior near Hail but these are likely to have little impact on the locust situation. In Yemen, vegetation was green or becoming green in a few places in the summer breeding areas in the interior between Marib and Sayoun because of rainfall in April. In Oman, light rain fell in a few places of the northern interior on the 10th and 16th. Nevertheless, vegetation was dry and conditions were unfavourable for breeding.

In the **Eastern Region**, dry conditions prevailed in the summer breeding areas along the Indo-Pakistan border where seasonal rains associated with the monsoon have yet to commence. Nevertheless, there were isolated light showers reported at Bahawalpur, Pakistan and Bikaner in Rajasthan, India during the last week of May.

Area Treated

Algeria	650 ha (27 March – 12 April)

Desert Locust Situation and Forecast

(see also the summary on page 1)

WESTERN REGION

Mauritania

• **SITUATION**

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

• **FORECAST**

Isolated adults are likely to appear between Aioun El Atrous and Nema once the summer rains start in the south. No significant developments are likely.

Mali

• **SITUATION**

No surveys were carried out during May but there were reports of scattered immature adults near Gao at In Tahaka (1612N/0025W) and In Amaka (1642N/0044W).

• **FORECAST**

Low numbers of adults may be present in those few areas that are green in parts of Timetrine and the Adrar des Iforas. If so, these will mature and breed on a small scale once summer rains commence.

Niger

• **SITUATION**

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

• **FORECAST**

Low numbers of locusts are likely to appear and breed on a small-scale in parts of Tamesna and Air once summer rains commence. No significant developments are likely.

Chad

• **SITUATION**

No reports received.

• **FORECAST**

Low numbers of locusts could appear and breed in areas where rain is thought to have recently occurred in Tibesti and Ennedi.

Senegal

• **SITUATION**

No reports received.

• **FORECAST**

No significant developments are likely.

Algeria

• **SITUATION**

A late report indicated that third to fifth instar hoppers continued to form small groups at densities of up to 20 hoppers per bush in late March and early April. The infestations were concentrated mainly in one area between In Salah (2712N/0229E) and Tamanrasset (2250N/0528E) and, to a lesser degree, west of Tamanrasset in Wadi Amded (2244-2247N/0404-0412E). Ground control operations treated 650 ha from 27 March to 12 April.

No locusts were seen during a joint Algerian-Libyan survey in border areas in the extreme southeast from Illizi (2630N0825E) to southeast of Djanet (2434N/0930E) from 27 April to 10 May.

• **FORECAST**

A few residual populations may be present between Tamanrasset and In Salah where small-scale breeding occurred in April. Unless further rains fall, locust numbers will decline as conditions become dry and unfavourable.

Morocco

• **SITUATION**

No locusts were reported during May.

• **FORECAST**

No significant developments are likely.

Libyan Arab Jamahiriya

• **SITUATION**

Scattered mature adults were seen at three places near Ghat (2459N/1011E) on 3-8 May during a joint Algerian-Libyan survey that was conducted in border areas in the extreme southwest from 27 April to 10 May.

• **FORECAST**

Locust numbers will decline near Ghat as natural vegetation continues to dry out and a few adults may persist in irrigated areas. 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.

CENTRAL REGION

Sudan

• **Situation**

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

• **Forecast**

Isolated adults are likely to appear and breed on a small scale in areas of recent rainfall in Northern Kordofan, Northern Darfur and Kassala. No significant developments are likely.

Eritrea

• **Situation**

No locusts were seen during surveys carried out on the Red Sea coast between Massawa (1537N/3928E) and Mehimet (1723N/3833E) on 22-23 May.

• **Forecast**

No significant developments are likely.

Somalia

• **Situation**

No locusts were seen during surveys carried out on the escarpment east of Hargeisa (0931N/4402E) and Burao (0931N/4533E) on 21-22 May.

• **Forecast**

Isolated adults may be present or appear on the escarpment in areas of recent rainfall and green vegetation. No significant developments are likely.

Ethiopia

• **Situation**

No locusts were seen during surveys carried out on 18-21 May between Dire Dawa and the Somali border.

• **Forecast**

No significant developments are likely.

Djibouti

• **Situation**

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

• **Forecast**

No significant developments are likely.

Egypt

• **Situation**

During April, first to third instar hoppers and scattered immature and mature adults mixed with African Migratory Locust were present in an irrigated agricultural scheme in the Western Desert near Sharq Oweinat (2219N/2845E). No locusts were reported elsewhere in the country.

During May, scattered Desert Locust mixed with African Migratory Locusts persisted at two farms near Sh. Oweinat where fifth instar hoppers, fledglings, immature and mature adults were reported on the 17th. Some copulating adults were seen.

• **Forecast**

Locust numbers will increase in agricultural areas near Sh. Oweinat as breeding continues in irrigated crops. Nevertheless, this does not pose a threat to neighbouring areas and no significant developments are likely.

Saudi Arabia

• **Situation**

No locusts were reported during May in the spring breeding areas of the interior and on the Red Sea coastal plains near Qunfidah (1909N/4107E).

• **Forecast**

Isolated adults may be present on the Red Sea coastal plains near Jizan. No significant developments are likely.

Yemen

• **Situation**

No locusts were seen during surveys carried out on 15-18 May in the interior summer breeding areas from Al-Jawf and Marib to Shabwah and Wadi Hadhramaut.

• **Forecast**

Unless further rains fall in the interior, breeding conditions will become unfavourable and no significant developments are likely.

Oman

• **Situation**

An isolated third instar hopper was found on the northern coastal plains near Jama (2332N/5737E) on 13 May. No locusts were reported elsewhere in the country.

• **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 seen during surveys carried out on the coast near Bandar Lengeh (2634N/5452E) in Hormozgan Province on 24 May.

• **Forecast**

No significant developments are likely.

Pakistan

• **Situation**

No reports received.

• **Forecast**

Low numbers of locusts are likely to appear and breed on a small-scale in parts of Cholistan and Tharparkar deserts once summer rains commence. No significant developments are likely.

India

• **Situation**

No locusts were reported during May.

• **Forecast**

Low numbers of locusts are likely to appear and breed on a small-scale in parts of Rajasthan once summer rains commence. 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 in September 2001 and is now available from FAO. French and Arabic versions will be released later this year. Please contact the Locust Group for more information.

eLocust. Updated details of a new system for recording and transmitting locust survey and control data collected in the field can be found on the Internet at:

www.fao.org/news/global/locusts/elocust.htm

Publications on the Internet. More reports of FAO locust-related meetings are available for downloading at www.fao.org/news/global/locusts/reports1.htm:

- EMPRES/CR: Spray Equipment Evaluation (English)
- EMPRES/CR: 2002 Annual Report (English)
- EMPRES/CR and Central Region Commission: 2nd Joint Survey on the Egypt/Sudan border, January 2003 (English)
- SW Asia Commission: 9th Iran/Pakistan Joint Desert Locust Survey, 1-30 April 2003 (English)
- SPOT-VGT: form to be used in the field for validation of satellite vegetation imagery (English, Arabic)

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).

Desert Locust Control Diploma. The Department of Crop Protection of the Faculty of Agriculture, University of Khartoum is offering a one-year post-graduate diploma course in Desert Locust Control that is expected to start in August 2003. Applications should be sent before the end of June to: Registrar of the Graduate College, University of Khartoum, POB 321, Khartoum, Sudan. For more details: selbashir@hotmail.com

2003 events. The following are provisionally scheduled:

- **CLCPANO.** Extraordinary Session, Alger (Algeria), 7 June
- **CLCPRO.** 2nd Session, Alger (Algeria), 8-12 June
- **DLCC Technical Group.** FAO Rome, postponed (tba)
- **CRC.** Executive Committee meeting, Beirut (Lebanon), 14-18 July
- **DLCC.** 37th Session, FAO Rome, 22-26 September
- **EMPRES/CR.** 11th Liaison Officers meeting, Djibouti, 12-16 October
- **EMPRES/WR.** 2nd Liaison Officers meeting, Agadir (Morocco), December

No. 296

DESERT LOCUST BULLETIN

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 km^2 • band: 1 - 25 m^2

SMALL

- swarm: 1 - 10 km^2 • band: 25 - 2,500 m^2

MEDIUM

- swarm: 10 - 100 km^2 • band: 2,500 m^2 - 10 ha

LARGE

- swarm: 100 - 500 km^2 • band: 10 - 50 ha

VERY LARGE

- swarm: 500+ km^2 • 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.

Desert Locust Summary
Criquet pèlerin - Situation résumée

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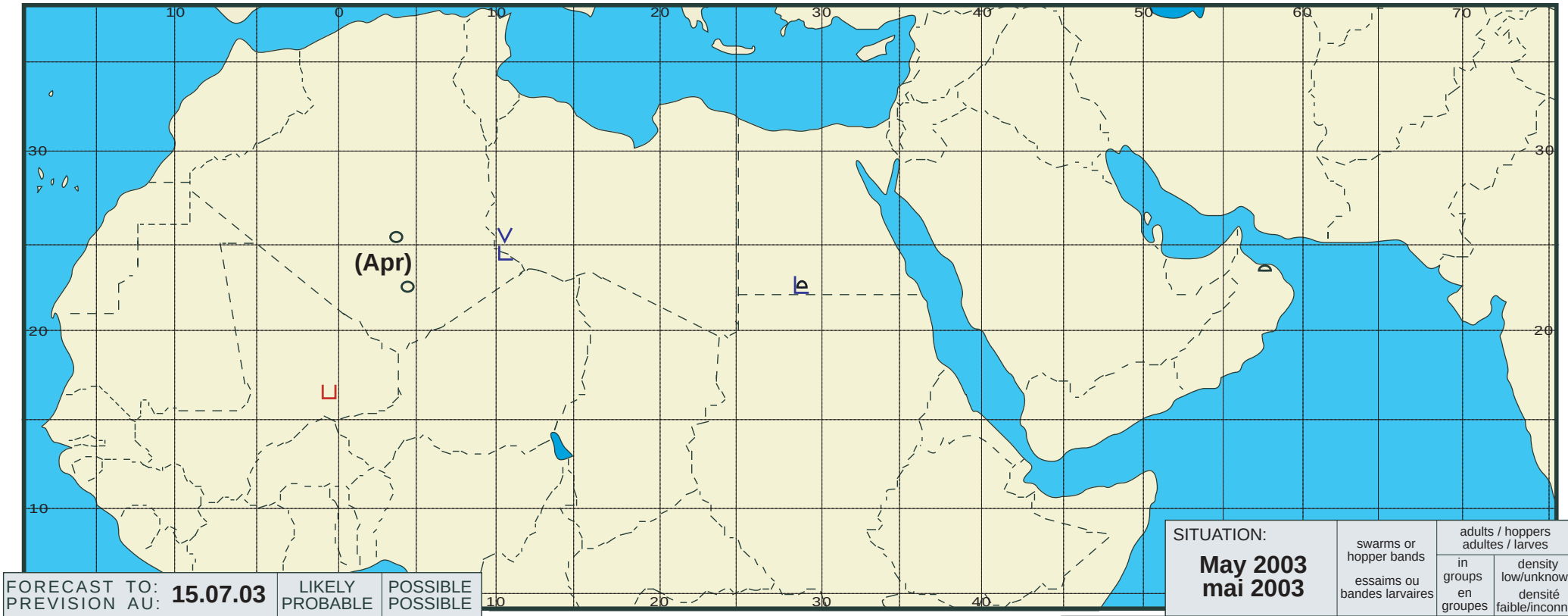

FORECAST TO: PREVISION AU: **15.07.03**	LIKELY PROBABLE	POSSIBLE POSSIBLE
favourable breeding conditions conditions favourables à la reproduction		
major swarm(s) essaim(s) important(s)		
minor swarm(s) essaim(s) limité(s)		
non swarming adults adultes non essaimant		

SITUATION: **May 2003 mai 2003**	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)			