

# DESERT LOCUST BULLETIN

FAO Emergency Centre for Locust Operations



No. 333

(3 July 2006)



## General Situation during June 2006 Forecast until mid-August 2006

The Desert Locust situation remained calm during June. Small-scale breeding occurred in Algeria and Libya causing locust numbers to increase slightly and ground control operations were undertaken in both countries. Isolated adults were reported in Niger and are probably present in other parts of the summer breeding areas in the Sahel. Although seasonal rains commenced in a few places in the Sahel in late June, ecological conditions were still dry and unfavourable for breeding. Nevertheless, small-scale breeding will occur in the summer breeding areas in the Sahel in West Africa and Sudan and along the Indo-Pakistan border once more rains fall. Elsewhere, isolated adults were seen in Egypt and local breeding occurred in northwest Somalia.

**Western Region.** Small-scale breeding has been in progress in eastern **Algeria** since March and in southwest **Libya** since May. Consequently, locust numbers have increased gradually and some populations became *transiens* and formed groups of hoppers and adults in June. Ground control operations treated 394 ha in Algeria (up to 15 June) and 1,995 ha in Libya (12-28 June). More groups could form as vegetation dries out. The situation requires careful monitoring. Local populations of isolated solitary adults were reported in the summer breeding areas in **Niger**. Although surveys were not conducted in **Mauritania** or **Mali** during June, similar populations are likely to be present there as well. Summer rains have started in a few places in the Sahel and, as they

become more widespread, conditions will improve and small-scale breeding is expected to occur during the forecast period in parts of southern Mauritania, northern Mali and northern Niger.

**Central Region.** No locusts were reported in the region during June except for isolated solitary adults in southern **Egypt** and local breeding in northwest **Somalia**. As ecological conditions improve, small-scale breeding is expected to occur in the interior of **Sudan** during the forecast period. Breeding could also take place in western **Eritrea** and in the interior of **Yemen** if rains fall. Surveys should be conducted regularly in all three countries throughout the summer

**Eastern Region.** Mainly dry conditions prevailed and no locusts were reported in the region during June. 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 June 2006

**Rains began to fall from mid-June onwards in parts of the summer breeding areas in the Sahel in West Africa and Sudan where ecological conditions are expected to improve. Pre-monsoon showers fell in early June along the Indo-Pakistan border but conditions remained dry and unfavourable for breeding.**

In the **Western Region**, the Inter-Tropical Convergence Zone (ITCZ) continued its seasonal movement northwards during June, reaching 19N over Mauritania (Tidjikja) and occasionally as far north as 20N over Mali. During the second half of the month, light rain fell in parts of the summer breeding areas, mainly in the Hodh Ech Chargui and Hodh El Gharbi regions in southeastern Mauritania, in the Timetrine, Tilemsi Valley, Adrar des Iforas and Tamesna in northern Mali, and in Tamesna and, to a lesser extent, the western Air in Niger. Light rain may also have extended northwards into southern and central Algeria. Although vegetation was dry or drying in nearly all of these areas, ecological conditions are expected to improve in the coming weeks from the recent rainfall. Vegetation was drying up in most places along the southern side of the Atlas Mountains in Morocco and Algeria except for the Ziz and Ghris Valleys in Morocco.

In the **Central Region**, the ITCZ moved progressively northwards during June, reaching 14-15N by the end of the month. Consequently, light rain occurred and ecological conditions were improving in parts of the summer breeding area in Sudan, mainly in West and North Darfur (Geneina – Kutum – El Fasher), in North Kordofan (Umm Badr – Sodiri – Abu Uruq), between Khartoum and Shendi, and near Kassala. Light rains may have fallen in the southern part of the western lowlands in Eritrea but ecological conditions remained dry. Some rain may also have occurred along the Red Sea coastal plains in Yemen but dry conditions prevailed in the interior summer breeding areas. In northern Oman, light to moderate rain fell at times and green vegetation was present in some places.

In the **Eastern Region**, pre-monsoon showers fell on 1-2 June along both sides of the Indo-Pakistan border. The rains were mainly concentrated in the summer breeding areas near Jaisalmer and Bikaner in India, and extended to parts of Pakistan east of Sukkur and near Bahawalpur. As very little rain fell after this in June, ecological conditions remained mainly dry in both countries. Light rain fell in the spring breeding areas near Turbat, Pakistan during the first half of June.



### Area Treated

Algeria	3 ha (28-31 May)
	394 ha (1-14 June)
Libya	1,995 ha (12-28 June)



### 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 up to 20 June.

###### • FORECAST

*Scattered adults are likely to be present in some places in the south, mainly in the two Hodhs and to a lesser extent in Tagant and Trarza. Small-scale breeding is expected to commence with the onset of the summer rains.*

##### **Mali**

###### • SITUATION

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

###### • FORECAST

*Scattered adults are likely to be present in a few places in Timetrine, Tilemsi Valley, Adrar des Iforas and Tamesna where small-scale breeding is expected to occur in areas of rainfall.*

##### **Niger**

###### • SITUATION

During June, isolated immature and mature adults were present at five places in the Air Mountains and at two places in Tamesna between In Gall (1651N/0701E) and In Abangharit (1754N/0559E). Further south, a single solitary mature adult was seen north of Tahoua (1457N/0519E) near Adehan on the 23<sup>rd</sup>.

• **FORECAST**

*Small-scale breeding will occur in areas of recent rainfall in Tamesna, especially on the Tazerzait Plateau, and to a lesser extent in parts of the Air Mountains. Consequently, locust numbers may increase slightly during the forecast period.*

**Chad**

• **SITUATION**

A late report indicated that no surveys were carried out and no locusts were reported in May.

• **FORECAST**

*Isolated adults may start to appear in a few places in the east and centre of the country by the end of the forecast period.*

**Senegal**

• **SITUATION**

No locusts were reported during June.

• **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 the first half of June, solitary immature adults were present at densities up to 600 adults/ha in three areas near Illizi (2630N/0825E) where local breeding occurred in May. Small-scale breeding continued near agricultural areas to the north and south of Adrar (2753N/0017W) where infestations of solitary and *transiens* third to fifth instar hoppers and hopper groups, at densities of 100-200 hoppers/bush, mixed with immature adults, at densities of 400-1,500 adults/ha, were present. Ground control operations treated 394 ha in both areas from 1 to 14 June. In the west, *transiens* adults were seen at one location near Tindouf (2741N/0811W) on 5 June.

No locusts were seen during surveys in the south between the Hoggar Mountains and the Mali/Niger border.

• **FORECAST**

*Small-scale breeding should end soon near Illizi but may continue near Adrar up to mid-July. 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 on a significant scale.*

**Morocco**

• **SITUATION**

No locusts were reported during June.

• **FORECAST**

*No significant developments are likely.*

**Libyan Arab Jamahiriya**

• **SITUATION**

During the second and third decades of June, groups of fledglings and immature adults mixed with isolated solitary adults were seen in some places in the southwest near Ghat and in the Al Hamada Al Hamra near the Algerian border. These infestations developed from breeding that occurred during the spring. Ground control operations treated 1,995 ha from 12 to 28 June.

• **FORECAST**

*Any locusts that escape control operations are expected to concentrate in the few areas that remain green near Ghat and to a lesser extent in the Al Hamada Al Hamra. Consequently, there is a risk that a limited number of additional groups could form during the forecast period.*

**Tunisia**

• **SITUATION**

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

• **FORECAST**

*No significant developments are likely.*

**CENTRAL REGION**

**Sudan**

• **SITUATION**

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

• **FORECAST**

*Scattered adults are likely to be present in a few places in the summer breeding areas. Small-scale breeding is expected to occur in areas that receive rainfall.*

**Eritrea**

• **SITUATION**

No locusts were seen during a survey carried out in the western lowlands from 23 to 25 June.

• **FORECAST**

*Isolated adults could appear in parts of the western lowlands and breed on a limited scale if rainfall occurs.*



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### Ethiopia

• SITUATION

No locusts were reported during June.

• FORECAST

*No significant developments are likely.*

### Djibouti

• SITUATION

No locusts were reported during June.

• FORECAST

*No significant developments are likely.*

### Somalia

• SITUATION

Scattered fifth instar hoppers and mature adults were seen at two locations west of Hargeisa in mid-June.

• FORECAST

*Scattered adults may persist in a few places on the escarpment between Boroma and Burao.*

### Egypt

• SITUATION

During June, isolated solitary adults were seen in one of the farms in the Western Desert at Sh. Oweinat (2219N/2845E) on the 23<sup>rd</sup>. No locusts were seen elsewhere during surveys in the Western Desert.

• 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 June.

• FORECAST

*Isolated adults may be present on the Red Sea coast near Jizan and could breed on a limited scale in areas where conditions are favourable.*

### Yemen

• SITUATION

No locusts were seen during surveys carried out in the summer breeding areas in the interior in Al Jawf, Marib and Shabwah regions in mid-June.

• FORECAST

*Isolated adults may be present in a few places 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 June in the northern interior, along the Batinah coastal plains and on the Musandam Peninsula.

• 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 reports were received during June.

• FORECAST

*No significant developments are likely.*

#### Pakistan

• SITUATION

No locusts were reported during the second half of May and first half of June.

• FORECAST

*As monsoon rainfall is forecasted to be poorer than normal, locust numbers may increase only slightly as a result of limited breeding in a few areas between Tharparkar and Cholistan.*

#### India

• SITUATION

No locusts were seen during surveys carried out in Rajasthan and Gujarat during the first half of June.

• FORECAST

*As monsoon rainfall is forecasted to be poorer than normal, locust numbers may increase only slightly as a result of limited breeding in a few areas of Rajasthan, mainly near the Pakistani border and along the Rajasthan Canal.*

#### 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/ECLC Desert Locust Information Service (eclc@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 has distributed units to nearly all of the frontline countries so that they can become operational this summer. Photos and more information are available at: [www.fao.org/ag/locusts/en/activ/DLIS/index.html](http://www.fao.org/ag/locusts/en/activ/DLIS/index.html)

**Desert Locust warning levels.** DLIS is experimenting with a 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 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. Your feedback on the usefulness of this scheme and any suggested improvements is welcome.

**Post Graduate Diploma in Desert Locust management.** Applications are being accepted for the 2006-07 one-year diploma course at the University of Khartoum (Sudan) until the second week of July. For more information, please contact the CRC Secretariat, Munir Butrous (munir.butrous@fao.org).

**EMPRES/CRC website.** Detailed information on EMPRES/CR and the FAO Central Region Commission as well as member country profiles can be found on the new EMPRES/CRC website at: [www.crc-empres.org](http://www.crc-empres.org).

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

- Report of the 2006 Iran/Pakistan Joint Border Survey (English) – Publications section
- Fighting the Locusts ... Safely brochure (French and Arabic) – Publications section
- Report of the 25<sup>th</sup> Session of the Central Region Commission (English and Arabic) – Publications section

**DLCC documentation.** The working documents for the 38<sup>th</sup> Session of the Desert Locust Control Committee (DLCC) will be posted on LocustWatch web page ([www.fao.org/ag/locusts](http://www.fao.org/ag/locusts)) as they become available in English, French and Arabic.

**2006 events.** The following meetings are tentatively scheduled:

- **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

**Retirement.** The Senior Officer of the Locust and Other Migratory Pests Group at FAO Headquarters, Clive Elliott, will retire in July. Mr. Elliott was appointed Senior Officer in February 2004 and was instrumental in organizing the 2003-05 Desert Locust upsurge campaign. His active support and contribution to improvements in the Locust Group, the Regional Commissions and the EMPRES programme are very much appreciated. Although he will be missed, we wish him good luck in the future.



## Glossary of terms

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



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### **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<sup>2</sup>      • band: 1 - 25 m<sup>2</sup>

#### **SMALL**

- swarm: 1 - 10 km<sup>2</sup>              • band: 25 - 2,500 m<sup>2</sup>

#### **MEDIUM**

- swarm: 10 - 100 km<sup>2</sup>          • band: 2,500 m<sup>2</sup> - 10 ha

#### **LARGE**

- swarm: 100 - 500 km<sup>2</sup>        • band: 10 - 50 ha

#### **VERY LARGE**

- swarm: 500+ km<sup>2</sup>              • 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**

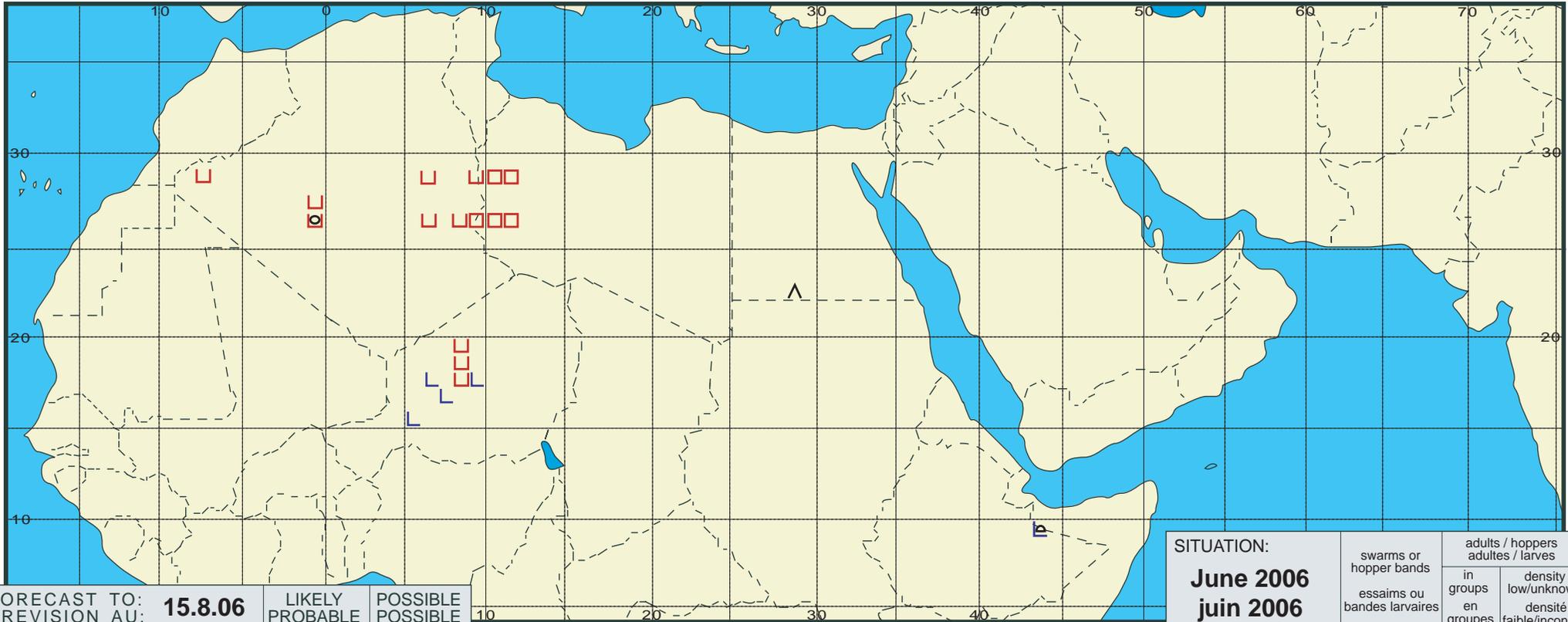
- locust-affected countries in South-West Asia: Afghanistan, India, Iran and Pakistan.



# Desert Locust Summary

## Criquet pèlerin - Situation résumée

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FORECAST TO: PREVISION AU:	<b>15.8.06</b>	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: <b>June 2006</b> <b>juin 2006</b>	swarms or hopper bands	adults / hoppers adultes / larves	
	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)			