

# DESERT LOCUST BULLETIN

FAO Emergency Centre for Locust Operations



No. 277  
(5 Nov 2001)



## General Situation during October 2001 Forecast until mid-December 2001

The Desert Locust situation remained calm during October. Isolated breeding continued in parts of western Mauritania and Niger. The seasonal rains in the Sahel of West Africa, Sudan and along the Indo-Pakistan border have finished and vegetation is drying up in most places. During the forecast period, low numbers of adults are likely to appear in winter breeding areas along the coastal plains of the Red Sea and in northwestern Mauritania. Although no significant developments are expected, regular surveys are recommended in the above areas.

**Western Region.** Low numbers of solitary adults were present in western Mauritania and northern Niger during October where small-scale breeding was in progress in a few places. A similar situation is likely in northern Mali. At least another generation of breeding is probably required before locust numbers are likely to start reaching threatening levels but this is not likely to occur because the summer rains have stopped and vegetation is drying out. During the forecast period, scattered adults are expected to appear and lay on a limited basis in northwestern Mauritania where unusually heavy rains fell in late September.

**Central Region.** No locusts were reported in the Region during October. Summer breeding has probably ended in the interior of Sudan where little rain fell in the past month and vegetation is drying out. During the forecast period, low numbers of adults are likely to appear and lay on the Red Sea coast, primarily in the Tokar Delta of Sudan, which received heavy rainfall in late October, and to a lesser extent on the surrounding plains as far south as northern Eritrea. On the eastern side of the Red Sea, scattered adults are likely to be present and will lay in coastal areas of Yemen and near Jizan, Saudi Arabia where good rains have fallen on a regular basis since July. In the Western Desert of Egypt, grasshoppers and African Migratory Locusts, mixed with a few Desert Locusts, were treated in cropping areas near the Sudanese border.

**Eastern Region.** Low numbers of solitary adults persisted in the summer breeding areas along the Indo-Pakistan border where vegetation was becoming dry in most places. During the forecast period, further breeding is not likely to occur and locust numbers will decline in both countries. 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.

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## DESERT LOCUST BULLETIN



### Weather & Ecological Conditions in October 2001

**There was a significant decline in rainfall in all summer breeding areas during October and vegetation is drying out. Good rains fell in the winter breeding areas along the Red Sea coast in Sudan, Yemen and parts of Saudi Arabia where breeding conditions are improving.**

In **West Africa**, the Inter-Tropical Convergence Zone (ITCZ) continued to retreat southwards during October, reaching about 10°N by the end of the month. Consequently, very little rain fell during October in the Sahel except for a few isolated showers in Mauritania and Niger. Vegetation was reported to be drying out in most areas. In Mauritania, the only report of significant rainfall was in Tagant at Moudjeria (43 mm) on the 10th although rains may have extended further north into El Khatt as far as Oujeft. Breeding conditions remain favourable in southwestern Tagant, southern Adrar, northern Trarza and northern Brakna. Conditions are improving in western Inchiri because of unusually heavy rains in late September. In Mali, no rainfall was reported or thought to have occurred in the north where vegetation is likely to be drying out. In northern Niger and eastern Chad, no rains were reported and vegetation is becoming dry.

In **North-West Africa**, only scattered showers were reported and breeding conditions continued to be unfavourable. In Morocco, light to moderate rains fell at times during October on the southern side of the Atlas Mountains in Morocco at Errachidia. Dry vegetation was reported in Oued Draa and further south in the Adrar Souttouf region. In Algeria, light rains were reported in the northwest, between Bechar and Timimoun, but vegetation was dry.

In **Eastern Africa**, rainfall declined in the summer breeding areas of Sudan where only light showers were reported in a few places of Northern Kordofan and Khartoum during the first week of October. Consequently, vegetation is drying out in all areas. Early rains fell in the winter breeding areas along the

southern coastal plains of the Red Sea at the end of the month. On the 25th, light rains were reported between Suakin and Tokar Delta and heavy showers fell in Tokar. Cold cloud activity suggests that additional rains may have occurred from Tokar to Karora, Eritrea during the second half of the month and light showers may have fallen on the northern coast of Sudan near Mohamed Qol on the 26th. Consequently, breeding conditions are likely to be improving in Tokar Delta and to a lesser extent on the coastal plains from Suakin to Karora. In northern Somalia, light to moderate showers fell on the escarpment near Hargeisa where conditions are likely to be favourable for breeding.

In the **Near East**, significant cold cloud activity was present and good rains fell along the Red Sea coastal plains of Yemen extending north to Jizan, Saudi Arabia during October. Good rains have fallen on a regular basis in this area since July. As a result, conditions are expected to be favourable for breeding in the main wadis and to a lesser extent elsewhere on the coastal plains. Elsewhere, dry conditions prevailed throughout the region.

In **South-West Asia**, high temperatures prevailed in the summer breeding areas along the Indo-Pakistan border. In India, light to moderate rains were reported during the first half of October in Rajasthan at Barmer, Bikaner and Jodhpur. Breeding conditions remain favourable in parts of Rajasthan, primarily near Palanpur, Jodhpur and Nagaur while vegetation is starting to dry out elsewhere in Rajasthan as well as in adjacent areas of Pakistan.



### Area Treated

Egypt<sup>1</sup> 1,824 ha (October)

<sup>1</sup> mainly grasshoppers and African Migratory Locust



### Desert Locust Situation and Forecast

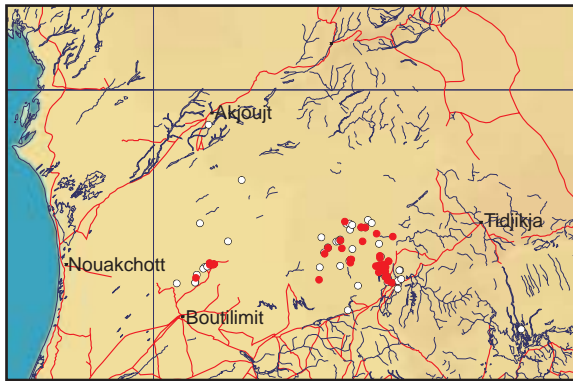
( see also the summary on the first page )

#### **WEST AFRICA**

##### **Mauritania**

##### • SITUATION

During October, low numbers of locusts were present in a remote area west of Tidjikja (1829N1131W), north of Boutilimit (1740N/1446E) and



○ adults/ailes ● hoppers/larves

Solitarius adults and hoppers in Mauritania during October

south of Akjoujt (1945N/1421W). Small-scale breeding was in progress, primarily near Moudjeria (1751N/1228W) where an increasing number of solitarius hoppers was found throughout the month. Initially, isolated hoppers were seen at five locations during the first dekad and, by the end of the month, hoppers of all instars were present at 12 places. Hopper densities increased to 480 hoppers per ha by the last dekad in response to the drying vegetation. Scattered solitarius immature and mature adults at densities of less than 100 per ha were also reported throughout the month in the same area.

• FORECAST

*Breeding will decline in most places with the possible exception of El Khatt where good rains are thought to have fallen recently. As vegetation dries out, adults may concentrate in the areas that remain green. Once these become dry, most of the adults will probably move to western Inchiri and lay on a small scale in areas of recent rainfall while a few adults could move towards the extreme north.*

**Mali**

• SITUATION

No reports received.

• FORECAST

*Scattered adults are likely to be present and breeding on a small scale in the main wadis of the southern Adrar des Iforas and in adjacent areas of the Tilemsi Valley. As vegetation dries out, breeding will decline and locusts may concentrate and perhaps form a few small groups.*

**Niger**

• SITUATION

Isolated maturing adults were seen at 22 places southeast of Aïr between Agadez (1700N/0756E) and Tanout (1505N/0850E) from 25 September to 24 October. Densities were generally less than 10 adults per ha except for one location where there were 100 adults per ha. During the second half of the month,

low numbers of adults at densities less than 5 adults per ha were present at a few places in Tamesna near In Abangharit (1754N/0559E). Small-scale breeding was in progress at four places where solitarius hoppers of all instars were present at densities from less than one to up to five hoppers per sq. metre.

• FORECAST

*As vegetation dries out, no further breeding is expected and locust numbers will gradually decline in Tamesna and Air. No significant developments are likely.*

**Chad**

• SITUATION

No reports received.

• FORECAST

*A few isolated adults may be present in parts of Biltine and near Fada in BET. If so, locust activity will decline as vegetation dries out during the forecast period.*

**Senegal**

• SITUATION

No locusts were reported in the Senegal River Valley up to 20 October.

• FORECAST

*No significant developments are likely.*

**Burkina Faso, Cape Verde, Gambia, Guinea Bissau, and Guinea Conakry**

• FORECAST

*No significant developments are likely.*

**NORTH-WEST AFRICA**

**Algeria**

• SITUATION

No locusts were reported during October.

• FORECAST

*No significant developments are likely.*

**Morocco**

• SITUATION

No locusts were seen during surveys conducted in October along the southern side of the Atlas Mountains between Tan-Tan and Errachidia, including Oued Draa, and in the Adrar Souttouf region of the extreme southwest.



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- **FORECAST**

*No significant developments are likely.*

### **Libyan Arab Jamahiriya**

- **SITUATION**

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

- **FORECAST**

*No significant developments are likely.*

### **Tunisia**

- **SITUATION**

No reports received.

- **FORECAST**

*No significant developments are likely.*

## **EASTERN AFRICA**

### **Sudan**

- **SITUATION**

No locusts were seen during surveys in the Baiyuda desert between Khartoum and Dongola (1910N/3027E) on 29-30 September. No locusts were reported in the summer breeding areas during October.

- **FORECAST**

*Locust numbers will decline in the summer breeding areas of Northern Darfur and Northern Kordofan as vegetation dries out and adults move on a small scale towards the winter breeding areas on the Red Sea coastal plains. Although the majority of the adults are likely to appear in Tokar Delta and to a lesser extent on the coastal plains between Suakin and Karora where rains recently fell, there is a slight possibility that some adults may first stopover in areas of previous flooding along the Atbara River and near Kassala. It is expected that it will take several generations of breeding before locust numbers reach significant levels. Nevertheless, regular surveys are recommended in these areas.*

### **Eritrea**

- **SITUATION**

No locusts were seen during surveys on the Red Sea coastal plains north of Massawa (1537N/3928E) during October. The solitary adults reported in Bulletin No. 276 were confirmed to be Tree Locust.

- **FORECAST**

*Scattered adults may be present and breeding on a small scale in the western lowlands. During the forecast period, low numbers of solitary adults are likely to appear and lay on the northern coastal plains of the Red Sea near Karora as well as further south near Massawa.*

### **Somalia**

- **SITUATION**

No reports received.

- **FORECAST**

*Scattered locusts may be present in a few areas of the northwestern escarpment and breeding in areas of recent rainfall. No significant developments are likely.*

### **Ethiopia**

- **SITUATION**

No locusts were reported up to 17 October.

- **FORECAST**

*No significant developments are likely.*

### **Djibouti**

- **SITUATION**

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

- **FORECAST**

*No significant developments are likely.*

### **Kenya, Tanzania and Uganda**

- **FORECAST**

*No significant developments are likely.*

## **NEAR EAST**

### **Saudi Arabia**

- **SITUATION**

No locusts were reported during October.

- **FORECAST**

*Scattered adults may be present and breeding on the Red Sea coastal plains near Jizan. No significant developments are likely.*

### **Yemen**

- **SITUATION**

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

- **FORECAST**

*Low numbers of adults are likely to be present and breeding in a few places along the Red Sea coastal plains and perhaps to a lesser extent along the Gulf of Aden coastal plains. Consequently, locust numbers will gradually increase but remain at non-threatening levels. Regular surveys are highly recommended in these areas.*

## Egypt

### • SITUATION

In the Western Desert, control operations treated 1,824 ha of grasshoppers and African Migratory Locusts, mixed with a few Desert Locusts, in cropping areas at Sh. Oweinat (2219N/2845E) on 16 October. No locusts were reported elsewhere in the country.

### • FORECAST

*Low numbers of Desert Locust, mixed with other locust and grasshopper species, are likely to decline in agricultural areas at Sh. Oweinat and Tushka. No significant developments are likely.*

## Kuwait

### • SITUATION

No reports received.

### • FORECAST

*No significant developments are likely.*

## Oman

### • SITUATION

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

### • FORECAST

*No significant developments are likely.*

## United Arab Emirates

### • SITUATION

No reports received.

### • FORECAST

*No significant developments are likely.*

## Bahrain, Iraq, Israel, Jordan, Qatar, Syria Arab Republic and Turkey

### • FORECAST

*No significant developments are likely.*

## SOUTH-WEST ASIA

### Iran

#### • SITUATION

No locusts were seen during surveys in Bushehr and Sistan Baluchistan on 6-7 October.

#### • FORECAST

*No significant developments are likely.*

### Pakistan

#### • SITUATION

During the first half of October, isolated solitary maturing adults at densities up to 1-5 per ha were reported at 13 locations in the Tharparkar, Nara and Cholistan deserts along the Indo-Pakistan border. Similar populations were reported during the second half of the month at the same number of locations.

#### • FORECAST

*Locust numbers will continue to decline in the summer breeding areas as vegetation dries out. No significant developments are expected.*

## India

#### • SITUATION

Late reports indicate that isolated maturing adults at densities of 1-3 adults per ha were present during the first half of September at four places in Jaisalmer district, Rajasthan. Second instar hoppers at densities of 1-2 per sq. m. were reported near Jaisalmer on the 6th, suggesting that small scale breeding was in progress in a few areas. During the second half of the month, locusts were seen at five places in Jaisalmer and one place in Bikaner districts where a maximum density of 11 adults per ha were reported.

During the first half of October, adult densities continued to increase gradually near Jaisalmer where isolated adults at densities of 5-20 per ha were seen at three places.

#### • FORECAST

*Locust numbers will continue to decline in Rajasthan as vegetation dries out. No significant developments are expected.*

## Afghanistan

#### • SITUATION

No reports received.

#### • FORECAST

*No significant developments are likely.*



## Announcements

**Locust reporting.** Affected countries are kindly reminded to make sure that locust situation reports are sent to FAO HQ by the 25th 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 email.** Affected countries are encouraged to send completed *FAO Desert Locust Survey and Control Forms* with a brief interpretation of the results by email to [eclo@fao.org](mailto:eclo@fao.org).



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## Glossary of terms

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

**Desert Locust Guidelines.** The revised edition in English was issued on 24 September and is now available from FAO. Please contact the Locust Group for more information.

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

<http://www.fao.org/news/2001/010601-e.htm>

**Publications on the internet.** A list of publications that can be downloaded from the FAO Locust webpages is now available (<http://www.fao.org/news/global/locusts/pubslst.htm>). New additions are:

- Report of the 36th session of the DLCC recently held in Rome (English and French)
- FAO Desert Locust Guidelines, revised edition, 2001 (English)
- FAO Spray Monitoring Form (English)

**Upcoming meetings.** The following meetings are scheduled:

- Expert Consultation on the Registration of Biopesticides for Desert Locust Control, 3-7 December 2001 (Rome)
- 4th EMPRES Consultative Committee Meeting, 15-17 January 2002 (Cairo)
- 23rd session of the FAO Commission for Desert Locust Control in the Central Region (CRC), 9-14 March 2002 (Damascus)

### **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.



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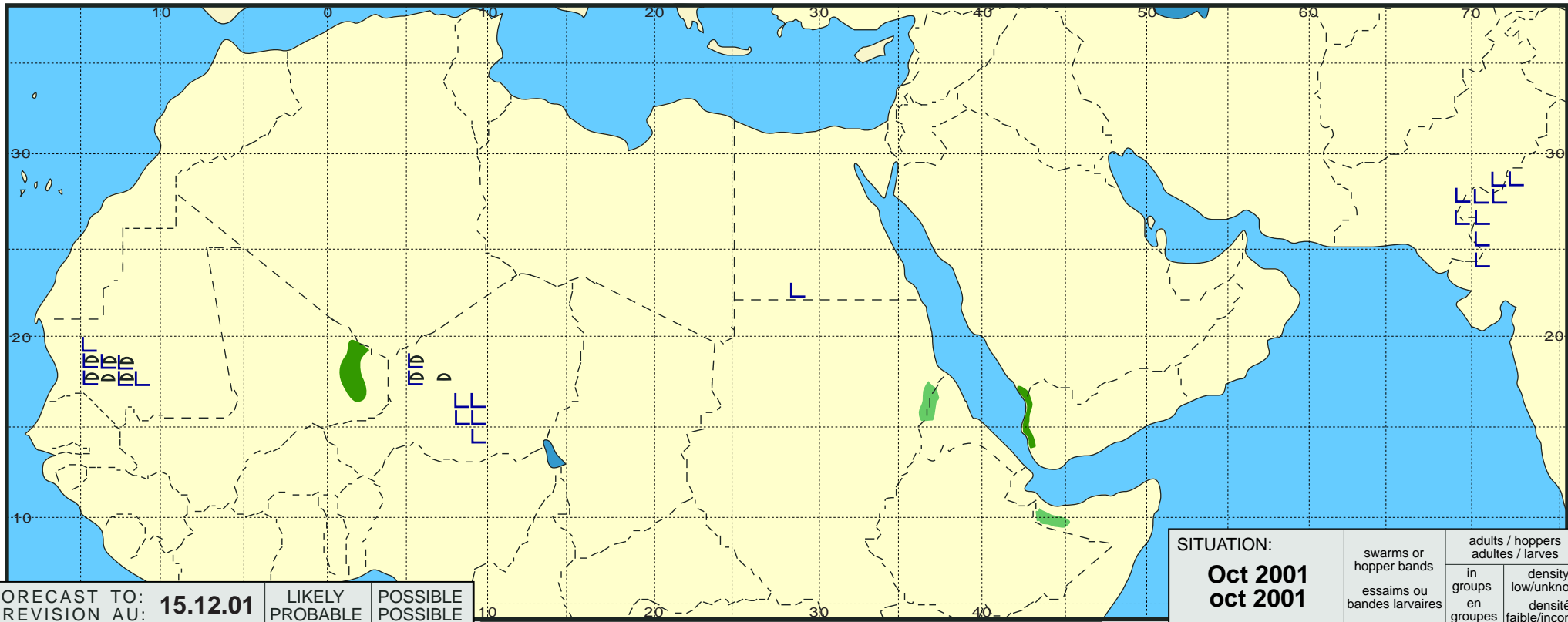
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# Desert Locust Summary

## Criquet pèlerin - Situation résumée

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FORECAST TO: PREVISION AU: <b>15.12.01</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>Oct 2001 oct 2001</b>	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)			

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)			