

DESERT LOCUST BULLETIN

FAO Emergency Centre for Locust Operations



No. 239
(4 Sept 1998)



General Situation during August 1998 Forecast until mid-October 1998

The Desert Locust situation remains calm. Only low numbers of locusts were reported from a few countries during August, mainly along the Indo-Pakistan border. Good rains fell in most of the summer breeding areas in the Sahel of West Africa and Sudan where locust numbers will increase slightly in the coming weeks. Unusually heavy rains fell in Yemen where a few small but important infestations were present which require careful monitoring.

Western Region. Good rains fell throughout the summer breeding areas of **Mauritania, Mali, Niger** and **Chad** during August which will improve breeding conditions. Although only isolated adults were reported in southern Mauritania and unconfirmed adults in northern Mali, small scale breeding is expected to occur. Consequently, locust numbers will increase but remain at a low and non-threatening level.

Central Region. Good rains fell throughout the summer breeding areas in the interior of **Sudan**, extending to western **Eritrea**. Small scale breeding will continue and locust numbers will increase but still remain at low levels in these areas. Higher numbers

were present in the interior of **Yemen** where groups of adults were reported laying eggs. Small hopper bands and adult groups may form during the forecast period. Unusually heavy rains over the Red Sea coasts of Yemen and south-western **Saudi Arabia** caused floods and extensive damage. Intensive surveys are required in coastal and interior areas of Yemen during the next six weeks. Isolated adults were present in northern **Somalia** where summer rains have commenced.

Eastern Region. Low numbers of adults were present and breeding along the border of **India** and **Pakistan**. Unless further rains fall, overall numbers will decline as conditions become unfavourable and adults start to move towards western Pakistan on a very limited scale. Isolated adults were reported in south-eastern **Iran**.

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

Telex: 610181 FAO 1

Internet: <http://www.fao.org/news/global/locusts/locuhome.htm>



No. 239

DESERT LOCUST BULLETIN



Weather & Ecological Conditions in August 1998

Breeding conditions improved throughout the Sahel of West Africa and Sudan as a result of good rainfall. Unusually heavy rains fell over the south-western Arabian Peninsula. Favourable breeding conditions prevailed along the Indo-Pakistan border.

In **West Africa**, the position of the ITCZ fluctuated around 20N during August but reached as far as 25-27N at times. Good rains fell during the first two dekads over much of the Sahel and southern fringes of the Sahara but declined substantially during the third dekad. In Mauritania, light to moderate rains fell throughout the south, reaching central Trarza (Boutilimit), southern Tagant (Tidjikja), and southern Hodh Chargui (Oualata). Unusually heavy rains were reported in the Atar region. During the last dekad, rains declined and were confined to the extreme south-east. In Mali, light rains fell in the Adrar des Iforas and between Tombouctou and Gao; heavier rains fell in the west near Nara and Niore and in the east near Menaka. During the last dekad, rains declined in all areas except in the Adrar des Iforas where good rains continued. In Niger, good rains fell during the first two dekads in Tamesna and western Air but declined in the last dekad. In Chad, good rains fell primarily in the east in Biltine and south-eastern BET near Fada and to a lesser extent in central (southern Batha) and western (Kanem) areas. Conditions for

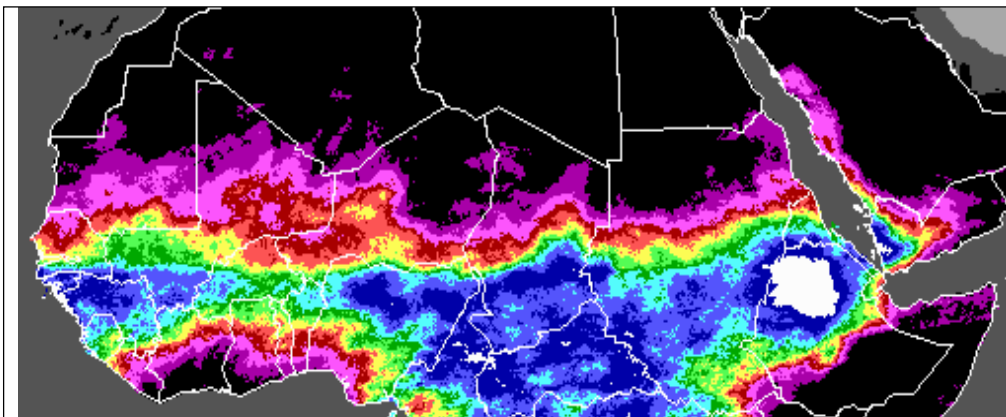
breeding are expected to be favourable in the above areas where vegetation is green or becoming green.

In **North-West Africa**, dry weather prevailed in most areas. Light rains fell during the second half of the month in the Algerian Sahara west and north of the Hoggar Mountains where small patches of green vegetation were reported.

In **Eastern Africa**, good rains fell throughout August over a widespread area of western, central, northern and eastern Sudan. The northern limit of these rains moved steadily northwards, reaching Wadi Howar in Northern Darfur, Safya in Northern Kordofan, Atbara in Northern Province and Wadi Oko in the Eastern Region by the end of the month. Breeding conditions are expected to be favourable in all of these areas. In Eritrea, good rains fell in the western lowlands where vegetation was reported to be green. Mainly dry conditions prevailed along the Red Sea coastal plains. The summer (Karen) rains commenced in northern Somalia and in the railway area of eastern Ethiopia in early August. Green vegetation was reported in the highlands west of Hargeisa and in the extreme north-east.

In the **Near East**, unusually heavy rains fell throughout the month on the Red Sea coastal plains of Yemen, extending south to the Aden coastal plains and north to Jizan, Saudi Arabia and the Asir Mountains. Heavy flooding and damage were reported near Hodeidah, Yemen. Good rains also fell in the eastern desert of Yemen between Marib and Ataq. Breeding conditions will improve in these areas.

In **South-West Asia**, mainly dry weather prevailed in the summer breeding areas of Pakistan except for light rains in the Khipro Desert where patchy green vegetation was reported. In India, light to moderate rains fell during the first half of the month in Rajasthan. Breeding conditions continued to remain favourable in both countries.



Cold clouds increased over Desert Locust breeding areas during August 1998.

light  heavy



Area Treated

No control operations were reported.



Desert Locust Situation and Forecast

(see also the summary on the first page)

WEST AFRICA

Mauritania

• SITUATION

A single solitary hopper was seen south of Kiffa at 1610N/1139E on 10 August. No other locusts were seen during surveys in the south.

• FORECAST

Small scale breeding is expected to continue and extend into areas of recent rainfall in the south and centre of the country as well as in the north near Atar. As a result, locust numbers will increase but remain at a low and non-threatening level.

Mali

• SITUATION

There were unconfirmed reports from nomads of adults present in mid August in the Adrar des Iforas south of Kidal between Wadi Alkit (1811N/0113E) and Wadi Edjerer (1810N/0145E).

• FORECAST

Low numbers of solitary adults are expected to be present and breeding in a few of the major wadis in the Adrar des Iforas, the Tilemsi Valley, Timetrine and Tamesna.

Niger

• SITUATION

No reports received.

• FORECAST

Low numbers of solitary adults are likely to be present and breeding in Tamesna where rains have recently fallen. Breeding is expected to continue and scattered hoppers and adults are likely to appear.

Chad

• SITUATION

No reports received.

• FORECAST

Low numbers of solitary adults may be present in a few places in Biltine and Ennedi. Small scale breeding is likely to occur in areas of recent rainfall.

Senegal

• 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.

NORTH-WEST AFRICA

Algeria

• SITUATION

No locusts were reported during August.

• FORECAST

Isolated adults are likely to present near the Hoggar Mountains and in the extreme south near Mali and Niger. Small scale breeding may occur in areas of recent rainfall.

Morocco

• SITUATION

No locusts were reported during August.

• FORECAST

No significant developments are likely.

Tunisia

• SITUATION

No locusts were seen in July.

• FORECAST

No significant developments are likely.

Libya

• SITUATION

No reports received.

• FORECAST

No significant developments are likely.

EASTERN AFRICA

Sudan

• SITUATION

In the Northern Province, low numbers of solitary mature adults were seen copulating in Wadi Doshin (1621N/3343E) on 12 August and similar numbers of mature adults were present at Shagig (1737N/3313E) on the 16th. In Northern Darfur, scattered solitary adults were present south of El Fasher (1337N/



No. 239



No. 239

DESERT LOCUST BULLETIN

2522E). No reports were received from Northern Kordofan or the Eastern region.

- **FORECAST**

Low numbers of solitary adults are likely to be scattered throughout parts of Northern Darfur, Northern Kordofan, Northern and Eastern regions. Locust numbers are expected to increase as a result of small scale breeding in areas of recent rainfall. Hoppers should be present during the forecast period and start to fledge from late September onwards. A few of these could begin to appear in the Red Sea area in mid October.

Eritrea

- **SITUATION**

No locusts were seen in the western lowlands during surveys on 22-24 July and 6-8 August. No locusts were reported from the Red Sea coastal plains.

- **FORECAST**

Low numbers of locusts are probably present in parts of the western lowlands. Small scale breeding is expected to occur in areas of recent rainfall with hoppers and new adults appearing during the forecast period.

Somalia

- **SITUATION**

Isolated maturing adults were present at few places on the plateau west of Hargeisa on 30 July to 5 August. Similar populations were seen during surveys in the eastern region north-west of Gardo (0930N/4906E) on 16-21 August.

- **FORECAST**

Low numbers of solitary adults are likely to persist and breed in a few places on the western and eastern escarpment.

Djibouti

- **SITUATION**

No reports received.

- **FORECAST**

No significant developments are likely.

Ethiopia

- **SITUATION**

No locusts were seen in the eastern region near Dire Dawa and Jijiga during surveys on 7-21 August. Elsewhere, no locusts were reported.

- **FORECAST**

Isolated adults may be present and breeding on a small scale in areas of recent rainfall near Dire Dawa.

Kenya, Tanzania and Uganda

- **FORECAST**

No significant developments are likely.

NEAR EAST

Saudi Arabia

- **SITUATION**

No locusts were reported during August.

- **FORECAST**

Low numbers of locusts are likely to present and breeding on the southern Tihama near Jizan and in the interior where rains have recently fallen.

Yemen

- **SITUATION**

In July, solitary and transiens maturing adults at densities of up to 1,500 per ha were present at several places in the interior of Shabwah near Ataq (1435N/4649E) on the 12-15th. During August, adult densities increased and groups started to form. Groups at densities of 10-15 adults per sq. m were seen copulating in Wadi Mayfa'ah at Ar-Raydah (1417N/4734E). On the 16th, laying groups were seen at three other places; hatching was reported at one of these. No locusts were seen during surveys carried out on the Red Sea coastal plains on 2 August.

- **FORECAST**

Small scale breeding could extend into areas of recent rainfall in the eastern desert between Al-Jawf and Hadhramaut. Hoppers are likely to appear and fledge from early October onwards; some may form small groups or bands. Scattered adults may be present or appear on the Red Sea coastal plains and start to breed in areas of recent rains.

Egypt

- **SITUATION**

Isolated mature adults were present in a few oases in the Nile River Valley near Lake Nasser on 12-15 August. Similar populations were also seen in a few wadis along the southern coastal plains of the Red Sea and in adjacent subcoastal areas on the 17-21st.

- **FORECAST**

Isolated adults will persist and perhaps breed on a very small scale in a few oases near Lake Nasser and in the Western Desert as well as in those areas that remain green on the Red Sea coastal plains.

Kuwait

- **SITUATION**

No locusts were reported during July.

- **FORECAST**

No significant developments are likely.

Oman

- **SITUATION**

No reports received.

- **FORECAST**

No significant developments are likely.

UAE

- **SITUATION**

No locusts were reported during July.

- **FORECAST**

No significant developments are likely.

Bahrain, Iraq, Israel, Jordan, Qatar, Syria and Turkey

- **FORECAST**

No significant developments are likely.

SOUTH-WEST ASIA

Iran

- **SITUATION**

During July, no locusts were seen during surveys on the coastal plains east of Bushehr, and in the interior west of Iranshahr and near Zabili on the 25-30th.

During August, no locusts were seen on the coastal plains east of Bushehr on the 8th. Isolated mature adults were present at four locations at densities up to 22 per ha along the coastal plains of Chabahar (2518N/6038E) bay.

- **FORECAST**

Isolated adults may persist at a few places along the Chabahar coastal plains but numbers will remain low and no significant developments are expected.

Pakistan

- **SITUATION**

During the second fortnight of July, low numbers of solitary adults persisted throughout the summer breeding areas. Infestations were scattered from the Tharparkar to Cholistan deserts as well as in Las Bela district west of Karachi. Locusts at densities up to 19 per ha were present at 50 locations.

During August, there was a steady decline in the number of locations reporting infestations as well as in the locust densities recorded. Up to 15 adults per ha were present at 37 locations during the first fortnight; most of these were in Mirpurkhas district of Tharparkar. During the second fortnight, locusts were present at 28 locations with a maximum density of 9 per ha.

- **FORECAST**

Low numbers of hoppers and fledglings are likely to be present in some areas of Tharparkar, Cholistan and Las Bela as a result of earlier breeding. By the

end of the forecast period, no further breeding is likely but adult numbers may increase slightly as some appear from the east and continue moving west towards Baluchistan.

India

- **SITUATION**

During the second fortnight of July, low numbers of solitary adults persisted throughout the summer breeding areas of Rajasthan. Locusts at densities up to 30 per ha were present at 55 locations, primarily in Bikaner and Barmer districts and to a lesser extent in Jodhpur, Jaisalmer, Jalore and Nagpur. Breeding was reported in Bikaner district where first to third instar hoppers were seen at Lunkaransar (2829N/7345E) on the 16, 27-28th.

During August, there was a steady decline in the number of locations reporting infestations as well as in the locust densities recorded. Up to 6 adults per ha were present at 13 locations during the first fortnight of the month, decreasing to 11 locations with densities of 4 per ha during the second fortnight.

- **FORECAST**

Low numbers of hoppers and fledglings are likely to be present in parts of Rajasthan as a result of earlier breeding. Overall numbers will continue to decline as further breeding is unlikely. By the end of the forecast period, adults will start to move westwards on a very limited scale.

Afghanistan

- **FORECAST**

No significant developments are likely.



Madagascar update

African Migratory Locust. During August, swarms were maturing in most of the infested areas throughout Madagascar. In the western part of the country, more than 40 swarms with an average size of 500 ha but varying from 4 ha to 3,750 ha were reported during the first dekad. Females were said to be completely mature near Ankay and laying had commenced by the second dekad. Additional reports were received during the remainder of the month of low to high den-



No. 239

DESERT LOCUST BULLETIN



No. 239



Glossary of terms

DESERT LOCUST BULLETIN

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

sity maturing swarms along the Tulear-Antananarivo highway (RN7) between Antsirabe and Sakaraha. One swarm was seen copulating south of Antsirabe near Ambositra. Elsewhere, numerous swarms persisted in the north-west of the country. No swarms were reported in the extreme south-west. During August, the two EC-funded helicopters treated 80 swarms, covering an area of 35,588 ha.

Red Locust. Swarms persisted in the Tsivory area of southern Madagascar.



Announcements

Documents added to the FAO locust pages. The *FAO Desert Locust Guidelines, IV. Control* (1992) and the *CRC Report of the Workshop on Evaluation of Spray Equipment Used in Desert Locust Control* (1995) can be downloaded for free from the Internet. The documents are in PDF format and require Adobe Reader 3.0 for viewing and printing. Go to the Books section on the Locust home page:
<http://www.fao.org/news/global/locusts/locuhome.htm>

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.

Desert Locust Control Committee Technical Group (DLCCTG). The next session will be held in Rome on 6-8 October to discuss EMPRES progress, control resources, research coordination, DLCC recommendations, and the future of the DLCCTG.

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.

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.

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.



No. 239

DESERT LOCUST BULLETIN

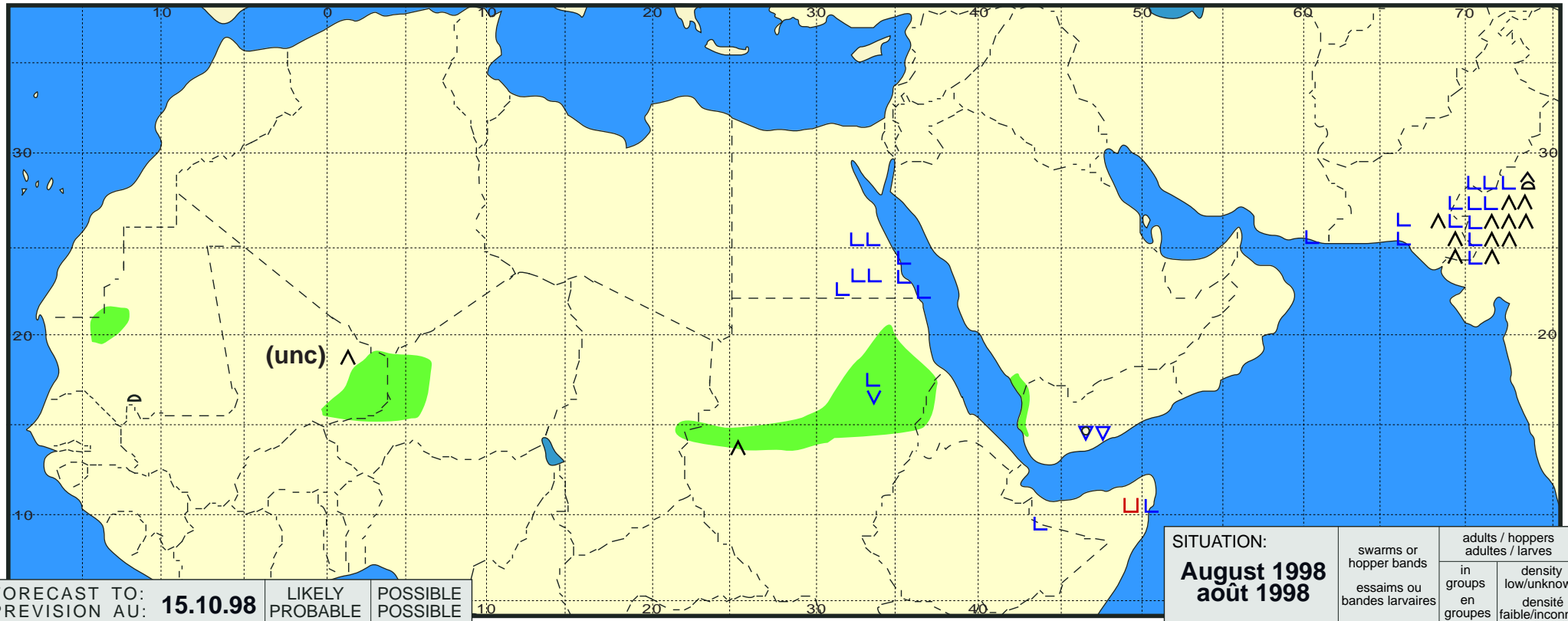
page **7** of 8



Desert Locust Summary

Criquet pèlerin situation résumée

239



FORECAST TO: PREVISION AU: 15.10.98	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: August 1998 août 1998	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)			