

# DESERT LOCUST BULLETIN

FAO Emergency Centre for Locust Operations



No. 241  
(5 Nov 1998)



## General Situation during October 1998 Forecast until mid-December 1998

Rainfall declined during October in the summer breeding areas of West Africa and Sudan as well as along the Indo-Pakistan border. Locusts in areas of previous breeding in northern Sudan and, possibly, northern Mali were concentrating and forming small bands and swarms. Numbers remained low in Mauritania, Niger, northern Somalia, Pakistan and India where little or no breeding was detected. A few adults were reported in the winter breeding areas along the Red Sea coasts of Saudi Arabia and Eritrea. Numbers will increase on the Red Sea plains during the forecast period as additional adults and perhaps a few small swarmlets appear and start to lay.

**Western Region.** An increasing number of solitarious adults was reported in Mauritania and Niger. As the rains have come to an end, further breeding is unlikely in these areas. There were unconfirmed reports of small bands and swarms in northern Mali which are likely to have been produced from local breeding during the summer. These should decline as conditions become dry and adults move towards northern Mauritania and southern Algeria where adults could appear. No locusts were reported from North-West Africa.

**Central Region.** It appears that more breeding occurred during September and October in Sudan than was previously detected. Control operations were undertaken against hoppers and adults. A few swarms were seen laying and small hopper bands had appeared by the end of the month in some places. These could form swarmlets in early December that are likely to move to the Red Sea coastal plains and join any adults which are expected to be there from now onwards. Scattered adults are already present on the Red Sea coastal plains of Saudi Arabia and were unconfirmed on the southern coast of Eritrea. Numbers will gradually increase along the coastal plains from southern Egypt to Eritrea, and from Saudi Arabia to the Gulf of Aden plains in Yemen as a result of breeding in the coming months. Conditions are already favourable in some of these areas. Isolated adults were present in northern Somalia.

**Eastern Region.** Locusts continued to decline in the summer breeding areas of India and Pakistan. Isolated adults were present in south-eastern Iran. A few adults may move from the Indo-Pakistan border and appear in Baluchistan of western Pakistan.

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### Weather & Ecological Conditions in October 1998

**Seasonal rains came to an end in the summer breeding areas of West Africa and Sudan. Heavy rains fell on the Red Sea coastal plains at times and moderate rains were reported along the Indo-Pakistan border. Breeding conditions are improving along both sides of the Red Sea.**

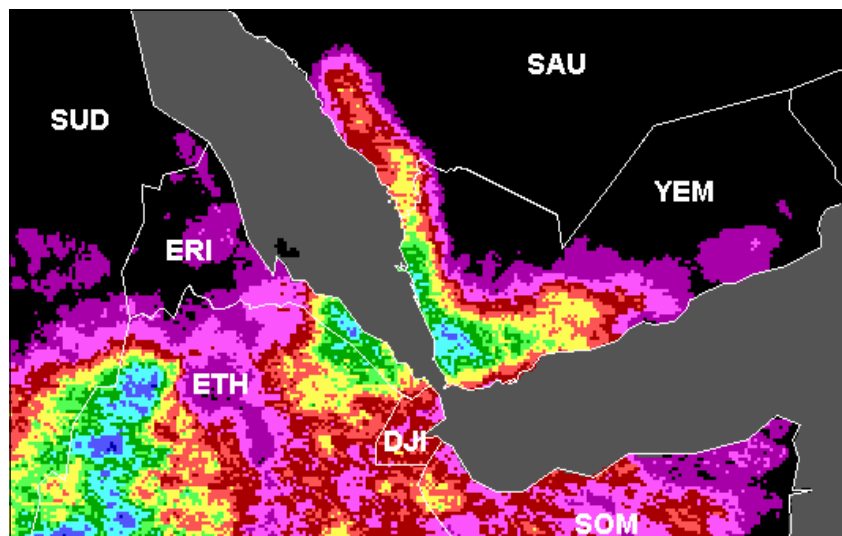
In **West Africa**, the ITCZ continued to move southwards well outside Desert Locust breeding areas, reaching 11N by the end of the month. Localized cold clouds were present during the first dekad over parts of southern and central Mauritania and eastern Chad but were absent for the rest of the month. Consequently, very little rain fell apart from some isolated showers in northern Mauritania between Atar and Zouerate and to a lesser extent in the south-west. Vegetation was reported to be drying up in most of the summer breeding areas with the exception of the Adrar des Iforas in northern Mali and Tamesna in Niger.

In **North-West Africa**, dry and warm conditions prevailed south of the Atlas Mountain in Morocco and Algeria where breeding conditions remained unfavourable. Light to moderate rains fell in southern Tunisia at mid month.

In **Eastern Africa**, the northern limit of cold clouds over Sudan during the first half of the month extended from El Fasher (Northern Darfur), Sodori (Northern Kordofan) and Ed Dueim (White Nile) to Kassala. Isolated showers fell in some areas. By the end of the month, no clouds were present over the summer breeding areas in Sudan where conditions were drying up. Light rains may have started to fall in some of the winter breeding areas along the Red Sea coastal plains between Tokar Delta, Sudan and Assab, Eritrea where breeding conditions should be improving. Heavier rains fell sporadically on the plateau in north-western Somalia and in adjacent areas of eastern Ethiopia.

In the **Near East**, heavy rains were reported on the southern coastal plains of Saudi Arabia at Jizan during the first dekad which may have extended south along the Red Sea and Gulf of Aden coastal plains in Yemen. Consequently, conditions should now be favourable for breeding in most of these areas. Light rains may have fallen in parts of the Yemen interior early in the month.

In **South-West Asia**, the south-westerly winds that extended from the Horn of Africa to the subcontinent have broken down and the monsoon has come to an end over the summer breeding areas along the Indo-Pakistan border. A few isolated showers, heavy at times, fell in Rajasthan, India and Tharparkar, Pakistan which should allow conditions to remain favourable in a few places while most other areas will become dry. Temperatures were becoming cool in both countries.



Heavy rains fell in early October in winter breeding areas along both sides of the southern Red Sea and Gulf of Aden.

light heavy



## Area Treated

Sudan 410 ha (2 October)



## Desert Locust Situation and Forecast

( see also the summary on the first page )

### WEST AFRICA

#### **Mauritania**

##### • SITUATION

During October, an increasing number of solitary adults was seen in parts of Trarza and western Tagant, mainly east of Nouakchott and between Boutilimit and Tidjikja. Similar numbers were present in Hodh El Garbi near Aioun El Atrous. By the end of the month, adults were seen in southwestern Adrar, suggesting that some locusts were starting to move northwards.

##### • FORECAST

*As conditions become dry, locust numbers are expected to decline in the south and southwest, and adults will move towards the north. Consequently, numbers will increase but remain at a low and non-threatening level in the north between Akjoujt and Bir Moghreïn where limited breeding could occur if rains fall.*

#### **Mali**

##### • SITUATION

There were unconfirmed sightings in early October of Desert Locusts mixed with grasshoppers in several wadis of the Adrar des Iforas near Aguelhok (1929N/0052E) and hopper bands near Tessalit (2011N/0102E). These infestations are in the same areas where breeding and limited control was carried out during the past few months.

##### • FORECAST

*Breeding will decline in the Adrar des Iforas as conditions become dry. Consequently, locusts are expected to concentrate in the few areas that remain green and form small groups, bands or swarmlets.*

#### **Niger**

##### • SITUATION

Low numbers of adults were seen copulating in a few green areas of Tamesna during the third dekad of September. During October, adults at densities up to 10 per ha were reported on about 30,000 ha in the north. No further details are available.

##### • FORECAST

*Low numbers of solitary adults are likely to persist in a few areas of Tamesna.*

#### **Chad**

##### • SITUATION

No reports received.

##### • FORECAST

*Low numbers of solitary adults may be present in a few places in Biltine and Ennedi south of Fada and in the Erdi.*

#### **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 October.

##### • FORECAST

*Isolated adults may be present or could appear in parts of the central and southern Sahara. Limited breeding could occur in areas of green vegetation.*

#### **Morocco**

##### • SITUATION

No locusts were reported during October.

##### • FORECAST

*Isolated adults may be present in a few places of the Adrar Souttouf in the extreme south-west.*

#### **Tunisia**

##### • SITUATION

No locusts were reported during August and September.

##### • FORECAST

*No significant developments are likely.*

#### **Libyan Arab Jamahiriya**

##### • SITUATION

No reports received.

##### • FORECAST

*No significant developments are likely.*



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### **EASTERN AFRICA**

#### **Sudan**

##### **• SITUATION**

New reports suggest that more breeding occurred during September and October in the central and northern interior than was previously detected. In Northern Kordofan, control operations treated 410 ha of late instar hoppers and immature adults between Umm Saiyala (1424N/3107E) and Ed Dueim (1359N/3218E) in early October. In the Northern Province, isolated adults were reported at mid month near Ed Damer (1737N/3359E). Two dense laying swarms of 100 ha each were seen nearby along the Atbara River on the 15th and two other low density swarms were laying west of the Nile River in the Baiyuda Desert in Wadi Abu Kirmit (1755N/3330E) and W. Sinigeir (1800N/3327E) on the 17th. Scattered adults were also present in the Baiyuda Desert and medium density second instar hopper bands covering a total of 1,700 ha were reported at two locations on the 27-28th. West of Khartoum, medium densities of adults were seen copulating at several locations in Wadi Muqaddam during the same period.

##### **• FORECAST**

*Locusts will decline in western and central summer breeding areas as vegetation dries out and adults move eastwards. In the Northern Province, small hopper bands will continue to form in November and fledge to form a few small adult groups and swarmlets in early December. These could then move to the Red Sea plains and appear by mid month. In the Eastern Region, adults may concentrate in areas of previous flooding near the Gash prior to moving to the coast. On the Red Sea coastal plains, numbers will gradually increase from now onwards as adults and perhaps a few small swarmlets arrive from the summer breeding areas and start to breed.*

#### **Eritrea**

##### **• SITUATION**

There was an unconfirmed report of solitary locusts on the Red Sea coastal plains south of Massawa in late October.

##### **• FORECAST**

*Low numbers of solitary adults are probably scattered along the Red Sea coastal plains between Massawa and Assab and to a lesser extent in a few places north of Massawa towards the Sudanese bor-*

*der. Small scale breeding is likely to be in progress or will occur in areas of recent rains, leading to a gradual increase in locust numbers.*

#### **Somalia**

##### **• SITUATION**

Isolated immature adults were seen at three locations on the escarpment between Burco (0931N/4532E) and Erigavo (1040N/4720E) during surveys carried out on 17-23 October. Similar numbers of mature adults were present west of Hargeisa and at two locations along the base of the north-western coastal foothills at the end of the month.

##### **• FORECAST**

*Low numbers of solitary adults are likely to persist and breed in a few places on the escarpment and along the base of the coastal foothills.*

#### **Ethiopia**

##### **• SITUATION**

No locusts were reported in the east near Jijjiga and Dire Dawa from late September to 23 October.

##### **• FORECAST**

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

#### **Djibouti**

##### **• SITUATION**

No reports received.

##### **• FORECAST**

*No significant developments are likely.*

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

##### **• FORECAST**

*No significant developments are likely.*

### **NEAR EAST**

#### **Saudi Arabia**

##### **• SITUATION**

Scattered solitary mature adults, at densities up to 100 adults per ha, were seen at nine places along the southern Red Sea coastal plains north of Jizan to Ad Darb (1744N/4215E) on 19-22 October.

##### **• FORECAST**

*Locust numbers will gradually increase in the Jizan area and extend along the Red Sea coastal plains to Jeddah as a result of small scale breeding during the forecast period. There is a low risk of a few small groups appearing from the summer breeding areas in the interior of Sudan or Yemen.*

#### **Yemen**

##### **• SITUATION**

No surveys were undertaken during October.

• **FORECAST**

*Scattered adults are likely to be present and breeding on the Red Sea and Gulf of Aden coastal plains. Small scale breeding will continue through out the period. Consequently, locust numbers will gradually increase in these areas and may be supplemented by other adults coming from the summer breeding areas of Shabwah in the next few weeks.*

**Egypt**

• **SITUATION**

Isolated mature adults persisted on the south-eastern coastal plains and around Lake Nasser during October. Elsewhere, no locusts were reported.

• **FORECAST**

*Locust numbers will gradually increase from now onwards on the southern coastal plains of the Red Sea as adults and perhaps a few small swarmlets arrive from the summer breeding areas and start to breed. Isolated adults may persist in a few inland oases.*

**Oman**

• **SITUATION**

No reports received.

• **FORECAST**

*No significant developments are likely.*

**Kuwait**

• **SITUATION**

No locusts were reported during September.

• **FORECAST**

*No significant developments are likely.*

**UAE**

• **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 on 7-8 October on the coastal plains east of Bushehr. In the south-east near Chabahar, isolated mature adults were seen on the 11th at two places on the Vashnam Plains (2523N/6045E) and surrounding area.

• **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 October, the number of locations reporting locusts as well as densities continued to decline due to drying conditions. Up to five maturing and mature adults per ha were seen at 16 locations during the first fortnight and 14 locations during the second fortnight along the Indian border from Tharparkar to Bahawalpur and in Las Bela district west of Karachi.

• **FORECAST**

*Numbers will continue to decline in the summer breeding areas where only a few isolated adults may persist. A few adults may appear in Baluchistan from the Indo-Pakistan summer breeding areas.*

**India**

• **SITUATION**

During the last fortnight of September, there was an increase in the number of locations reporting locusts in Rajasthan compared to earlier in the month. Isolated adults at densities up to 6 per ha were present at 34 locations, primarily in Barmer and to a lesser extent in Bikaner district.

During the first fortnight of October, the number of locations with locusts decreased to eight and densities declined to two adults per ha.

• **FORECAST**

*Numbers will continue to decline in Rajasthan and only a few isolated adults will persist.*

**Afghanistan**

• **FORECAST**

*No significant developments are likely.*



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### 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.

**Desert Locust meetings.** The tentative schedule of up-coming meetings is:

6-8 Dec	EMPRES Liaison Officer meeting, Cairo
9-11 Dec	EMPRES Consultative Committee, Cairo
22-24 Feb	Common Strategies and Restructuring of Organizations Involved in Desert Locust Control in the Western Region, Rome
10-14 May	35th session of the DLCC, Rome
21-25 June	23rd session of the NW Africa Commission, Morocco



### 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<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.

##### **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**

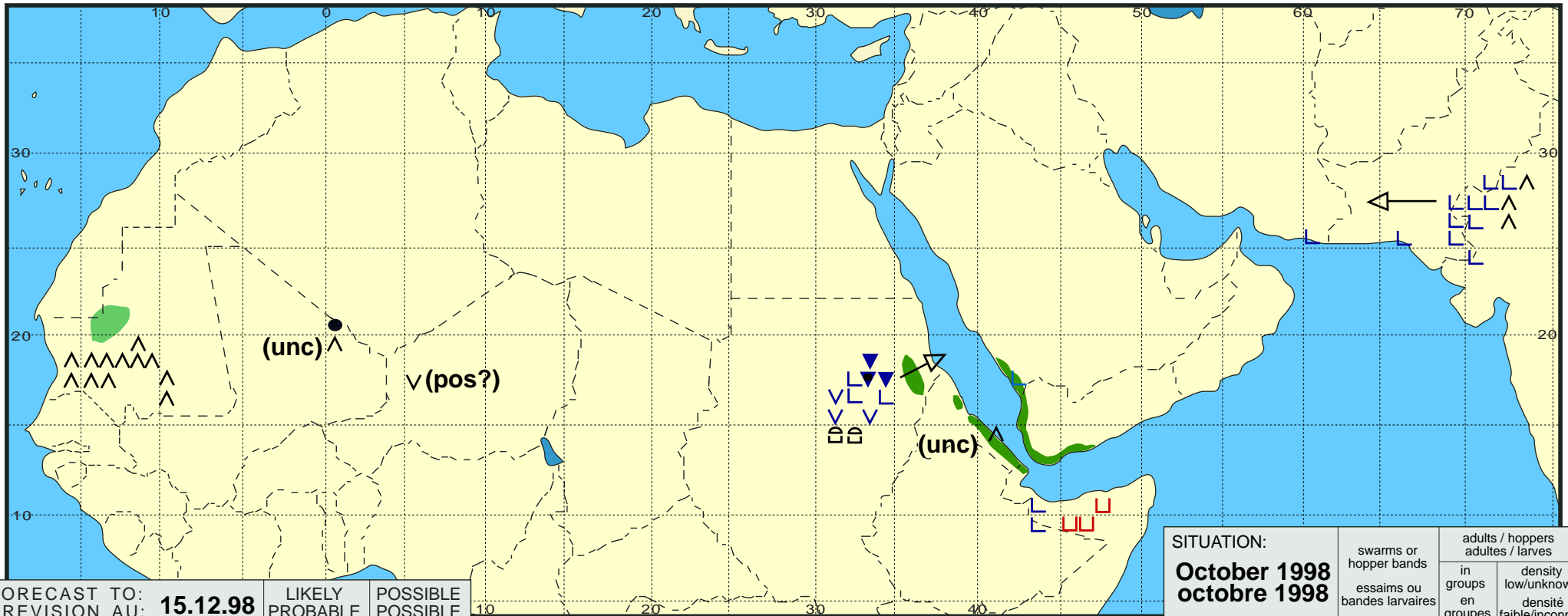
- a period following a recession marked initially by a very large increase in locust numbers and contemporaneous outbreaks followed by the production of two or more successive seasons of transient-to-gregarious breeding in complimentary seasonal breeding areas in the same or neighbouring Desert Locust regions.



# Desert Locust Summary

## Criquet pèlerin situation résumée

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FORECAST TO: PREVISION AU: <b>15.12.98</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>October 1998 octobre 1998</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)			