FVR : current situation in Mayotte

Fabienne Coroller

Vet inspector, DVM, PhD

Service vétérinaire de Mayotte

BP 40 – ZI Kawéni

97 600 MAMOUDZOU

MINISTÈRE
DE L'AGRICULTURE
ET DE LA PÊCHE

Mayotte, endemic zone?

Epidemiological situation in 2008

- **1. targeted studies– March 2008**:
  - In North-West region (M'Tsangamougi), **AND**
  - In goats introduced without any autorisation
- Results
  - 52 cattle tested coming from 7 herds (sampled in November 2007)
    - 12 positives, confirmed by Pasteur and 3 Ig M positive,
    - That is an apparent prévalence of 25 %
  - 23 goats tested coming from uncontrolled trade
    - 1 positive

    ⇒ **Confirmation of FVR virus presence in Mayotte,**

    ⇒ **Introduction from neighbored islands suspected**

MINISTÈRE DE L'AGRICULTURE ET DE LA PÊCHE

Epidemiological situation 2008
1. targeted study– N-W region

- Complementary studies – April 2008
  - Retest zebus found negative in March 2008
    - One seroconversion was identified out of 18 negative zebus retested
  - + 1 goat holding
    - 12 goats from one herd, 9 were positives
  - 4 other cattle herds
  - 6 uncontrolled introductions

⇒ At all, 29 cattle were positives out of 79 tested in april 2008 (37 % - 95%CI [26%;47%]).

⇒ 4 goats were positives out of 29 from uncontrolled trade and 2 with IgM (14%).

⇒ Confirmation of a recent **viral circulation**.

Epidemiological situation 2008

2. Retrospective survey

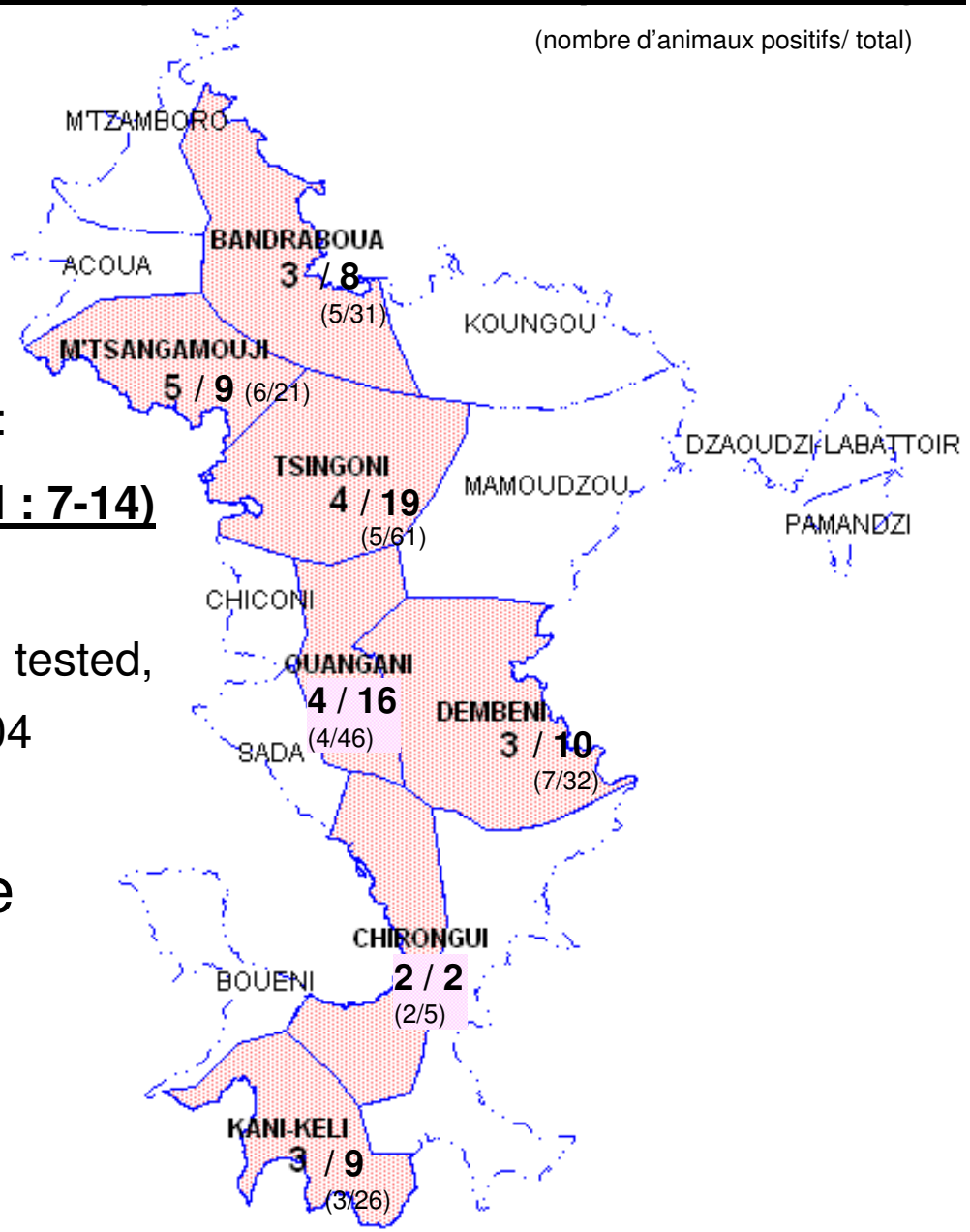
- Sampling :
  - 2007-2008 « zebus » serotheque from lab
  - Animal selection
  - Cattle sampled from June 2007 and May 2008
- Results
  - 301 cattle tested from 104 herds
  - 14 towns tested

    ⇒ Viral presence (since when?) <u>in the whole island</u>

MINISTÈRE
DE L'AGRICULTURE
ET DE LA PÊCHE

Distribution, per commune, of FVR positive herds (IgG)

(nombre d'animaux positifs/ total)



Results of the retrospective study :

- 32 positives, that is **11 % (95CI : 7-14)**
- distributed :
  - ✓in 7 out of 14 communes tested,
  - ✓That is 24 herds out of 104 tested.

⇒ Viral Circulation at the island scale

Epidemiological situation in 2008

3. Towards a sentinel herds surveillance – June 2008

- 13 goat herds tested
  - Herd size from 4 to 35 (mean : 21)
- = 272 goats tested
  - Only 5 herds totally negatives
    - Intra Prevalence : 62 % (95CI : 35% - 88%)
- Herd prevalence from 6 to 42 %

⇒ Choice of 5 sentinel herds

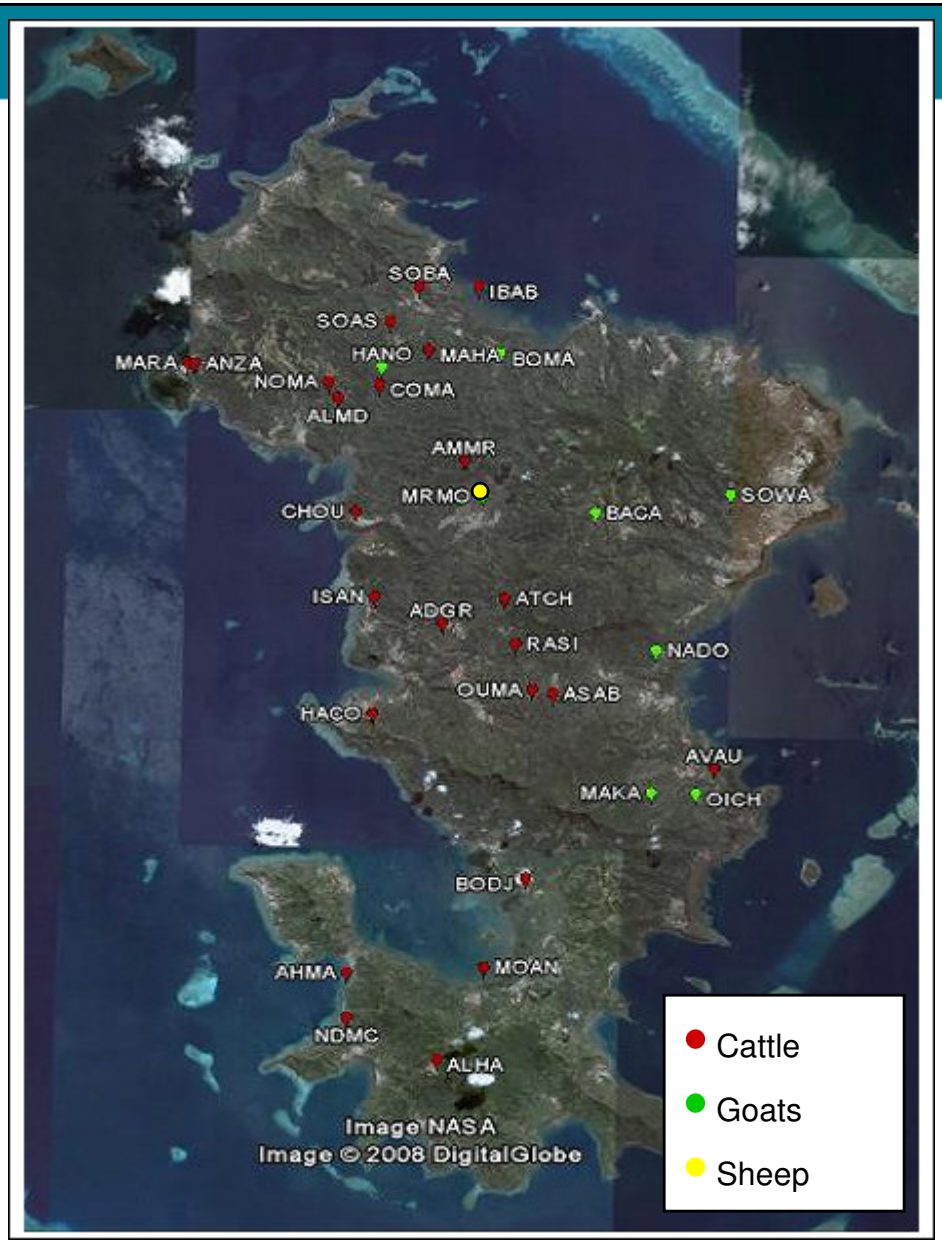
⇒ Sampling every 2 months

⇒ All **negative** until now (waiting for December 2008 samples results)

MINISTÈRE
DE L'AGRICULTURE
ET DE LA PÊCHE

FVR positive herd distribution in MAYOTTE

(based on 104 cattle herd May 2008 & 13 goat herds in June 2008)



July 2008 : one clinical case confirmed (sheep)

- The first FVR case was notified to OIE in July 2008:
  - One abortion in an ewe
  - in a herd with 13 sheep
  - RT-PCR positive
  - Until now, no seroconversion in the sentinel herd located just next.
- Human Health:
  - 11 cases, 10 with clinical signs detected in 2008

4. FVR history in Mayotte

- 2004 - 2005 serotheque sampling
  - « zebus » sampled during the annual brucellosis prophylactic campaign
  - 130 animals tested per year
- Results – analyses in progress
  - The first elements show few animals were already ELISA-positive in 2004 & 2005 (the exact number has to be confirmed).

MINISTÈRE DE L'AGRICULTURE ET DE LA PÊCHE

Surveillance strategy for 2009

1. Serological prevalence Study– in progress:

- Sampling
  - geographical representative (5 zones)
  - Known herds (about 150 professional farmers)
- Objectives :
  - Estimation of prevalence level
  - Choice of new sentinel herds

2. Active surveillance– More sentinel herds

- 30 zebus herds
- 4 goat herds
- 2 sheep herds

3. Reinforced awareness, especially on abortions

- Objective :
  - Improve passive surveillance, especially in sheep

Surveillance strategy for 2009

Reinforced collaborations

- Formalize a surveillance network
  - Conception & animation by a civil volonteer CIRAD
  - epidemiological bulletins
  - Field actors training (specially farmers)
  - Analyses will be done in Mayotte (Vet lab - LVAD)
- Strong partnership with the ‘cellule de veille sanitaire’ (Human)
  - Regular meetings
  - Active surveillance focused on « dengue-like »
  - One special lab fighting against vectors (mosqu
    - Entomological Surveillance
    - Targeted Anti-vectors Protocols
    - Joint Communication Vet Service / Human Health Se


Merci de votre attention
Thanks for your attention