



HUNGARY

Bluetongue disease eradication in Hungary

Regaining free status

Working Group on Bluetongue
5 October 2010

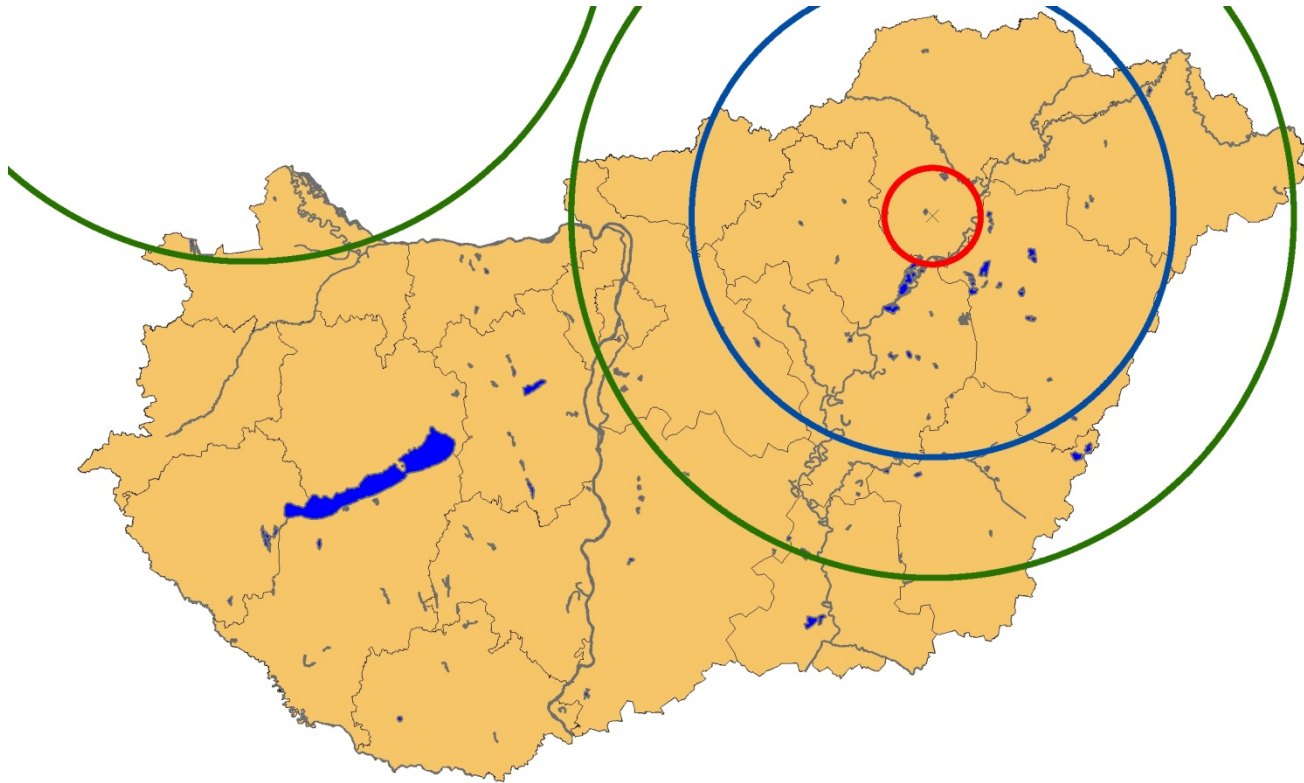


The outbreak

- **5 September 2008**: Bluetongue positivity was confirmed by PCR test (in 4 cases out of 281 cattle)
- Location: Forray-tanya, Gelej
Borsod-Abaúj-Zemplén County
LAT: North 47° 50' 04"
LON: East 20° 48' 11"
- The serotype of the virus was determined by the Pirbright Reference Laboratory as **BTV-8** (22 September 2008)
- Source of infection: Animal transport from France



Restricted zones (until February 2010)





Eradication

- All infected animals were removed:
 - Seropositive animals: isolated slaughter
 - Viropositive animals: killing and disposal in processing plant as category 1 material
- Emptying of the whole farm (351 cattle) in Gelej was finished by **17 Nov 2008**
- Local movement restriction was withdrawn on **2 Dec 2008**
- Date event resolved (regarding the notification of the OIE): **10 Dec 2008**



Monitoring I.

- Regarding the outbreak:

In the zone **within 20 km radius** around Gelej, from September 2008, **200 sentinel animals** (in 20 stock) were tested once a month (ELISA)



Monitoring II.

- In the restricted zones:

Monitoring with sentinel animals

- According to 1.1.2.1. of Annex I. (1266/2007/EC)
- Serological testing once a month
- Their number is calculated as to detect a seroconversion of 2% with 95% confidence
- To demonstrate the absence of bluetongue virus circulation, detection of a prevalence of 20% with 95% confidence is prescribed in 1.3. of Annex I.



Monitoring results (2009)

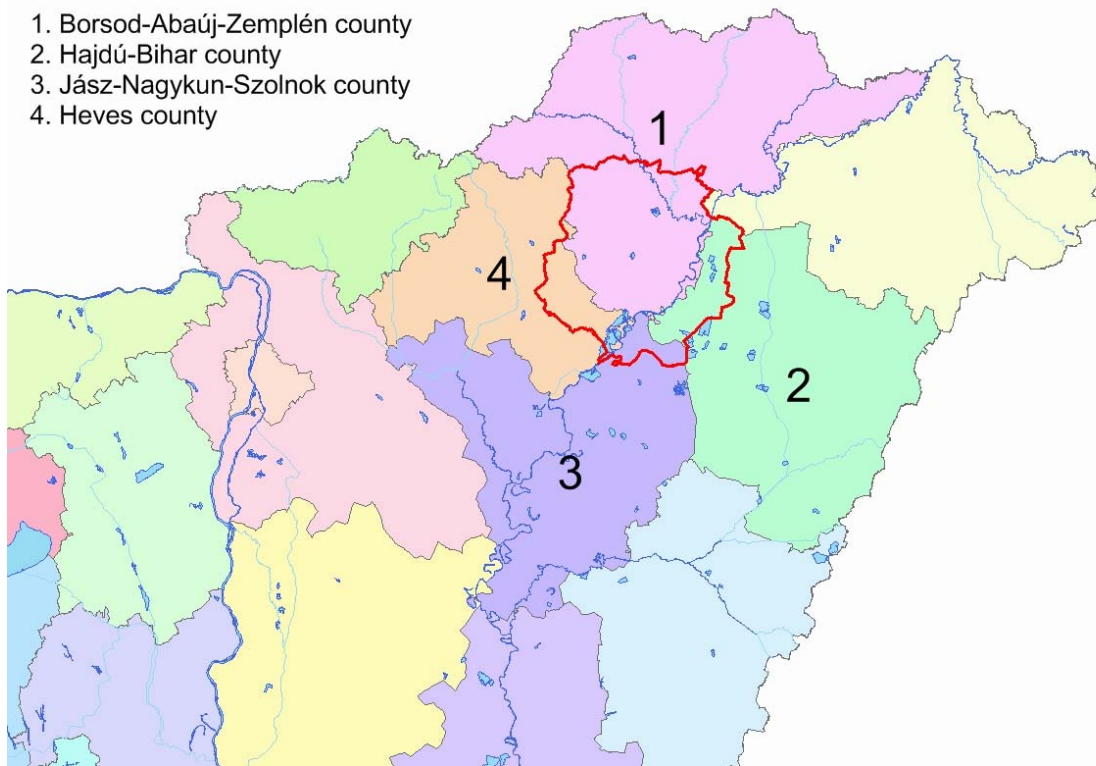
All results were negative!

		May	June	July	Aug	Sept	Oct	Nov	Dec
County	Planned	Tested	Tested	Tested	Tested	Tested	Tested	Tested	Tested
Borsod-Abaúj-Zemplén	544	180	534	514	534	504	514	543	499
Bács-Kiskun	152	81	126	156	150	156	150	204	112
Békés	300	300	300	300	300	300	300	300	300
Csongrád	148	117	143	148	148	148	148	148	148
Pest	452	359	545	452	452	452	452	452	452
Győr-Moson-Sopron	148	0	148	148	148	148	148	148	148
Hajdú-Bihar	468	468	468	468	468	468	468	468	468
Heves	272	127	246	252	263	254	269	259	259
Jász-Nagykun-Szolnok	420	340	420	420	420	420	420	420	420
Komárom-Esztergom	44	35	44	44	44	44	44	44	44
Nógrád	188	0	188	187	113	267	143	173	237
Szabolcs-Szatmár-Bereg	452	413	427	447	412	432	412	422	442
Total:	3588	2420	3589	3536	3452	3593	3468	3581	3529
%		67,44	100,02	98,55	96,20	100,13	96,65	99,80	98,35



Restricted zone (from February 2010)

1. Borsod-Abaúj-Zemplén county
2. Hajdú-Bihar county
3. Jász-Nagykun-Szolnok county
4. Heves county





Monitoring results (2010)

All results were negative!

	Jan	Febr	Mar	Apr	May	June	July	Aug	Sept
County	Tested	Tested	Tested	Tested	Tested	Tested	Tested	Tested	Tested
Borsod-Abaúj-Zemplén	564	230	200	548	254	193	248	246	189
Bács-Kiskun	152	<i>free zone</i>							
Csongrád	148	<i>free zone</i>							
Pest	452	<i>free zone</i>							
Győr-Moson-Sopron	148	<i>free zone</i>							
Hajdú-Bihar	468	60	60	152	152	152	152	152	152
Heves	264	59	47	47	148	144	142	147	149
Jász-Nagykun-Szolnok	420	163	143	148	111	148	148	92	<i>pending</i>
Komárom-Esztergom	44	<i>free zone</i>							
Nógrád	144	<i>free zone</i>							
Szabolcs-Szatmár-Bereg	452	<i>free zone</i>							
Total:	3256	512	450	895	665	637	690	637	490



Surveillance

- Outside the restricted zones:

Serological surveys

- According to 2.2.2. of Annex I. (1266/2007/EC)
- In September – October (when seroconversion is most likely to be detected)
- Randomly selected animals
- Their number is calculated as to detect 0,5% seroconversion with 95% confidence (much higher than the prescribed 20% prevalence) until February 2010, then 5%



Surveillance results (2009)

All results were negative!

County	Planned	Tested
Baranya	1346	1346
Bács-Kiskun	1854	1862
Békés	491	491
Csongrád	676	528
Fejér	1310	1310
Pest	270	281
Győr-Moson-Sopron	1196	1186
Komárom-Esztergom	497	501
Somogy	1794	1830
Tolna	1107	1110
Vas	999	999
Veszprém	1400	1400
Zala	1131	1131
Total	14071	13975 (99,32%)



Entomological surveillance

- Trapping of Culicoides species
 - identifying vector species and their occurrence
 - virological tests (PCR) to detect their infection
- In the restricted zones: monthly
- In November-December and March-April: weekly (before the beginning and the end of the seasonally vector-free period)
- Outside the restricted zones: monthly



Entomological surveillance (2008)

All PCR tests of the trapped midges were negative.

	10 Sept	18 Sept	24 Sept	1 Oct	7 Oct	17 Oct	30 Oct	18 Nov	26 Nov	5 Dec	Total
C. pulicaris	4	14	3	40	24	312	18	2	1	1	419
C. obsoletus	-	-	-	20	-	18	-	-	-	1	39
C. nubeculosus	64	226	1	1	1	52	3	-	-	-	348
Other C. spp.	3	83	1	3	5	8	1	2	-	-	106
Total	71	323	5	64	30	390	22	4	1	2	912

912 *Culicoides* spp. were trapped in the frame of the entomological surveillance between 10 Sept and 5 Dec 2008. in the protection zone, r = 20 km zone around Gelej



Entomological surveillance (2009)

All PCR tests of the trapped midges were negative.

	April	May	June	July	Aug	Sept	Oct	Total
C. pulicaris	447	5171	722	663	12	3	239	7257
C. obsoletus	5	626	44	19	8	5	26	733
C. nubeculosus	2	123	52	20	-	-	-	197
Other C. spp.	-	363	399	270	16	22	18	1088
Total	454	6283	1217	972	36	30	283	9275

Culicoides prevalence (2008-2009):

C. pulicaris complex:	74,62%
C. obsoletus:	8,47%
C. nubeculosus complex:	5,30%
Other Culicoides species:	11,61%



Entomological surveillance (April – September 2010)

All PCR tests of the trapped midges were negative.

Taxon	Number of Culicoides
C. pulicaris complex	24108
C. obsoletus complex	2176
C. nubeculosus complex	5438
Other Culicoides spp. (C. pictipennis, C. salinarius, C. fascipennis, C. festivipennis, C. parroti etc.)	1123
Culicoides spp. with non patterned wings	455
Non identifiable Culicoides (eg. with broken wings)	891
Total:	34191



Current situation

- No BT cases since October 2008
- All monitoring and surveillance tests gave negative result
- No virus were detected in vector species
- These results demonstrate the absence of bluetongue virus circulation in Hungary for two years



Regaining free status

- According to:
 - Article 6 of Commission Regulation 1266/2007/EC
and
 - Article 8.3.3. of OIE Terrestrial Animal Health Code
Bluetongue Chapter

Hungary wishes to lift its restricted zone and regain the free status for the whole country



**Thank you very much for your
attention!**