Status and recovery of indigenous crayfish populations after recent crayfish plague outbreaks in the Czech Republic

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Supplementary file 1.

Maps of catchments of the watercourses in which the described crayfish mass mortalities occurred. Relevant watercourses and their tributaries are highlighted. Geographic names mentioned in the descriptions of the outbreaks are indicated by abbreviations (water courses and bodies in blue, settlements in black). Potential migration barriers are indicated in the maps, and sites where crayfish affected by mass mortalities were found are highlighted. In case the mass mortality is marked by a single symbol, it is placed at the exact site where crayfish were found; if the extent of mass mortalities is marked by multiple symbol, these are spread over the area of the outbreak (which affected also the regions between such symbols). The same distinction between single and multiple symbols should be made if sites of crayfish presence are indicated on the map.

Supplementary Figure 1.

Catchment of the Pšovka brook (crayfish mass mortalities 1998-1999)

Supplementary Figure 2.

Catchment of the River Olše (crayfish plague outbreak 2006) including the Křivec brook (2004)

Supplementary Figure 3.

Catchment of the Bojovský brook (crayfish plague outbreak 2005)

Supplementary Figure 4.

Catchment of the Úpořský brook (crayfish plague outbreak 2005)

Supplementary Figure 5.

Catchment of the tributary of Pěněnský pond (crayfish plague outbreak 2007)

Supplementary Figure 6.

Catchment of the Žebrákovský brook (crayfish plague outbreak 2008)

Supplementary Figure 7.

Catchment of the River Senice (crayfish plague outbreak 2008)

Supplementary Figure 8.

Catchment of the brook Besének (crayfish plague outbreak 2009)

Supplementary Figure 9.

Catchment of the Zákolanský brook (crayfish plague outbreak 2009)

Supplementary Figure 10.

Catchment of the River Litavka (crayfish plague outbreak 2011)

Supplementary Figure 11.

Catchment of the Černý brook (crayfish plague outbreak 2014)

Supplementary Figure 1.

Catchment of the Pšovka brook

- extent of *Astacus astacus* and *Astacus leptodactylus* mass mortalities in 1998-1999
- extent of known *A. astacus* survival in 1999
- site of *A. astacus* transfer from the upstream refuge in 2005
- present contact zone of *A. astacus* and *Orconectes limosus*

Supplementary Figure 2.

Catchment of the River Olše including the Křivec brook

- flow direction
- potential barriers
- site of *Astacus astacus* mass mortality in 2004 (Křivec brook)
- extent of *A. astacus* mass mortality in 2006 (River Olše)

Supplementary Figure 3.

Catchment of the Bojovský brook

- Bo – Bojovský brook
- Vr – reservoir Vrané on the River Vltava
- Bj – village Bojov
- Ci – village Čisovice
- flow direction
- site of observed *Astacus astacus* mass mortality in 2005
- area with known occurrence of *Orconectes limosus* in 2011

Supplementary Figure 4.

Catchment of the Úpořský brook

extent of *Austropotamobius torrentium* mass mortality in 2005
area of known *A. torrentium* survival in 2005

Supplementary Figure 5.

Catchment of the tributary of Pěnenský pond

HP – village Horní Pěna

Pe – tributary of the Pěnenský pond

Pp – Pěnenský pond

Si – pond Sígl

↙ flow direction

— migration barrier

☀ extent of *Astacus astacus* mass mortality in 2007

● area of *A. astacus* survival after the crayfish plague outbreak

Supplementary Figure 6.

Catchment of the Žebrákovský brook

Supplementary Figure 7.

Catchment of the River Senice

- S – River Senice
- FL – village Francova Lhota
- HL – village Horní Lideč
- Li – village Lidečko
- VS – village Valašská Senice
- ↙ flow direction
- ★ site of *Astacus astacus* mass mortality in 2008

Supplementary Figure 8.

Catchment of the brook Besének

Be – brook Besének

Sv – River Svratka

Ti – town Tišnov

flow direction

site of *Astacus astacus* mass mortality in 2009

Supplementary Figure 9.

Catchment of the Zákolanský brook

Za – Zákolanský brook

Dr – Dřetovický brook

Op – Okošský pond

Po – Podholí

NM – Nový Mlýn

Ci – village Číčovice

flow direction

migration barriers

site of *Austropotamobius torrentium* mass mortality in 2009

Supplementary Figure 10.

Catchment of the River Litavka

Supplementary Figure 11.

Catchment of the Černý brook

C – Černý brook

UM – pond U Mlýnečku

PC – village Pec pod Čerchovem

↑ flow direction

☀ extent of *Astacus astacus* mass mortality in 2014