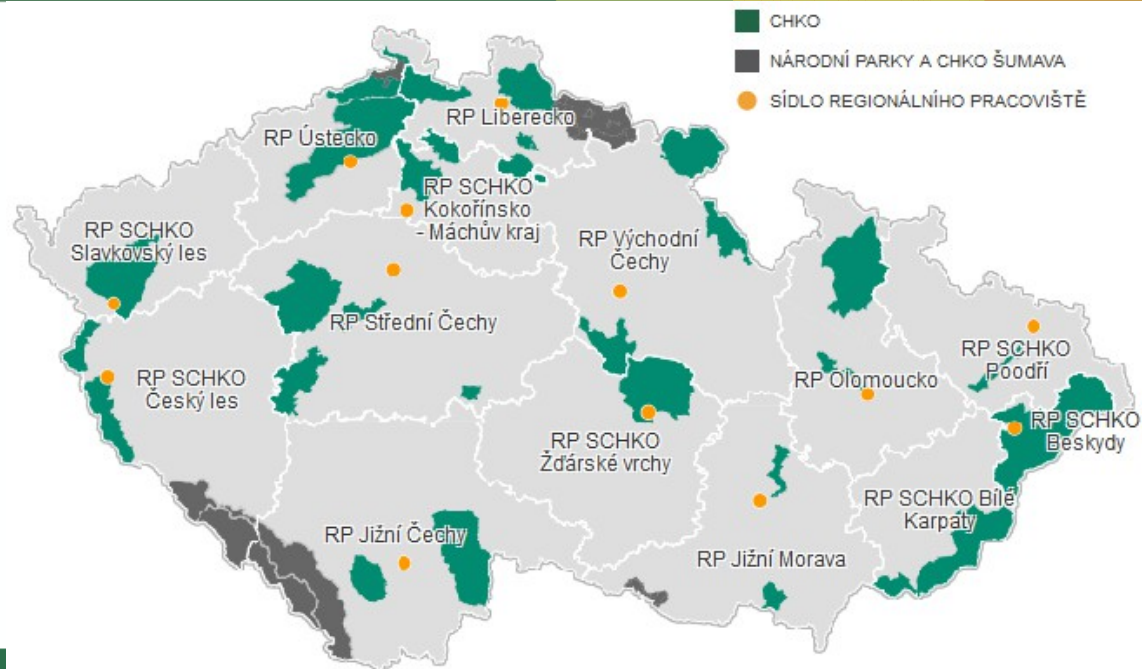


Invasive species in the Czech Rep.

Tomas Gorner

Common Nature Conservation Office

Nature Conservation Agency of the Czech Republic







Act No. 114/1992 Coll. on the nature and landscape protection:

- *„Intentional dispersion of geographically non-indigenous species (or crossbreeds) into the landscape shall be possible only with a permission of a nature protection authority“*
- *„On the entire territory of NPs, PLAs, it shall be prohibited to permit or carry out intentional dispersion of geographically non-indigenous species“*

Act No. 326/2004 Coll. Phytosanitary State Act:

- *„harmful organisms are any taxa harming plants or damaging plant products“*
- *„Each person is obliged to detect and reduce the occurrence of harmful organisms“*
- *„The State Phytosanitary Administration monitors and researches harmful and invasive harmful organisms specified in the decree, if they represent a risk to plants, plant products grown, produced, stocked, or to the environment.“*
- *„The SPA notifies the EC and other member states if any of the harmful organisms mentioned in Annexes occur“.*



Decree No. 215/2008 Coll. Measures against introduction and spreading of harmful plant species and plant products

- § 7, Annex 8 - List of 13 invasive harmful plant species which incidence has to be monitored:
 - *Cabomba caroliniana*
 - *Crassula helmsii*
 - *Eichhornia crassipes*
 - *Heracleum mantegazzianum*
 - *Heracleum persicum*
 - *Heracleum sosnowskyi*
 - *Hydrocotyle ranunculoides*
 - *Lysichiton americanus*
 - *Polygonum perfoliatum*
 - *Pueraria lobata*
 - *Senecio inaequidens*
 - *Sicyos angulatus*
 - *Solanum elaeagnifolium*



Cabomba caroliniana (chebule karolinská / kabomba)

Cabombaceae (chebulovité)

Popis:

Lodyhy dlouhé až několik m, vzpříavné, zpravidla kořenicí ve dně a tvořící výběžky. Listy **vstřícné**, řapík 0,5 - 2,0 cm dlouhý. Listová čepel ponořených listů v obrysu polokruhová až ledvinitá, 2 - 3 cm dlouhá, 3 - 6 cm široká, složená z mnoha (až 200) vidličnatě větvených listových úkrojků. Listová čepel na hladině plovoucích listů je štítnatá, podlouhlá, 1,5 - 2 cm dlouhá a 1,5 - 2 cm široká, zelená.

Květenství je nad vodní hladinou spolu s několika plovoucími listy. Květy jsou trojčetné, 6 - 15 mm v průměru. Kališní lístky jsou zelenavé, nebo bílé. Korunní lístky jsou bílé, bledě žluté nebo fialovočervené. Růst až 5 cm za den.

Rostlina barevně proměnlivá, nejčastěji světle zelená, vyskytují se však i rostliny tmavozelené až bledě vínově červené.

Biotope:

Stojaté a mírně tekoucí vody, nejčastěji do hloubky 3 m. Nejvíce jí vyhovují písčité dna. Často se pěstuje jako akvarijní rostlina.

Ekologie:

Optimální podmínky jsou v oblastech s průměrnou roční teplotou 15 - 18°C. Kabomba je ale ekologicky velice plastická a snese i zamuznutí vodní hladiny.

Rozšíření:

Původní – jižní Amerika a jihovýchod USA;

Zavlečená – Asie: Čína, jihovýchodní Asie až po Austrálii;

– Evropa: Velká Británie, Belgie, Nizozemsko, Maďarsko.

Prognóza šíření:

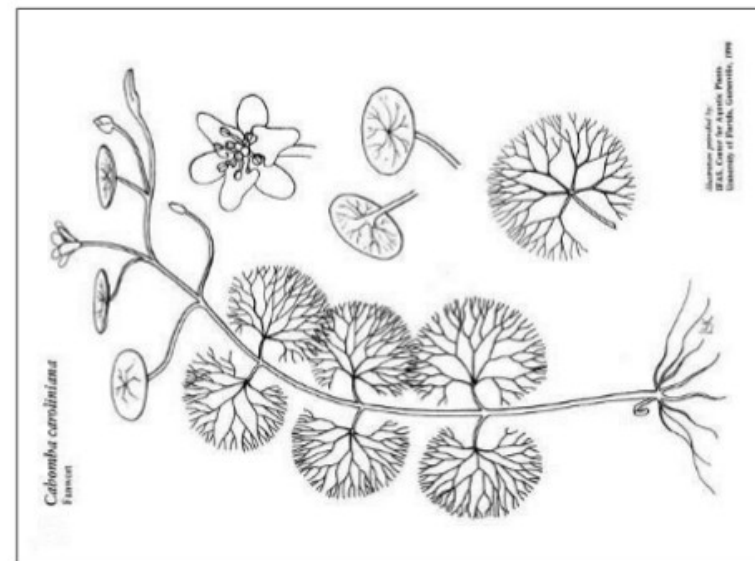
Podle EPPO je oblast střední Evropy středně až silně ohrožený region.



chebule karolinská (*Cabomba caroliniana*)
list - detail



chebule karolinská (*Cabomba caroliniana*)
květ - detail



chebule karolinská (*Cabomba caroliniana*)
list - detail



chebule karolinská (*Cabomba caroliniana*)
květ - detail



Lists of invasive species:

Pyšek P. et al., 2012: Catalogue of alien plants of the Czech Republic (2nd edition): checklist update, taxonomic diversity and invasion patterns. – *Preslia* 84: 155–255.

Šefrová H., Laštůvka Z., 2005: Catalogue of alien animal species in the Czech Republic. *Acta univ. agric. et silvic. Mendel. Brun.*, LIII, No. 4, pp. 151-170.

Lusk S., Lusková V., Hanel L. 2011. Black List alien invasive fish species in the Czech Republic. *Biodiverzita ichtyofauny ČR* (VIII):79-97.

Černý K., Hejná M., Kolářová Z., Mrázková M., Romportl D. 2013. An overview of selected alien invasive fungal pathogens of woody plants in the Czech Republic

More or less invasive?



Pergl et al. 2016: Black, Grey and Watch Lists of alien species in the Czech Republic based on environmental impacts and management strategy? *NeoBiota* 28: 1 - 37.

Black:

BL1 – high environmental and socio-economic impact

BL2 - medium env. and soc. impact, depend on human actions

BL3 – medium env. and soc. impact, spontaneous spread

Grey:

Limited impact, locally or regionally distributed

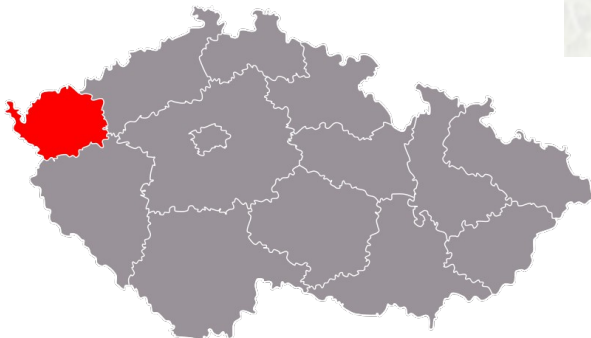
Watch:

Not recorded or be kept in culture, occur in other countries

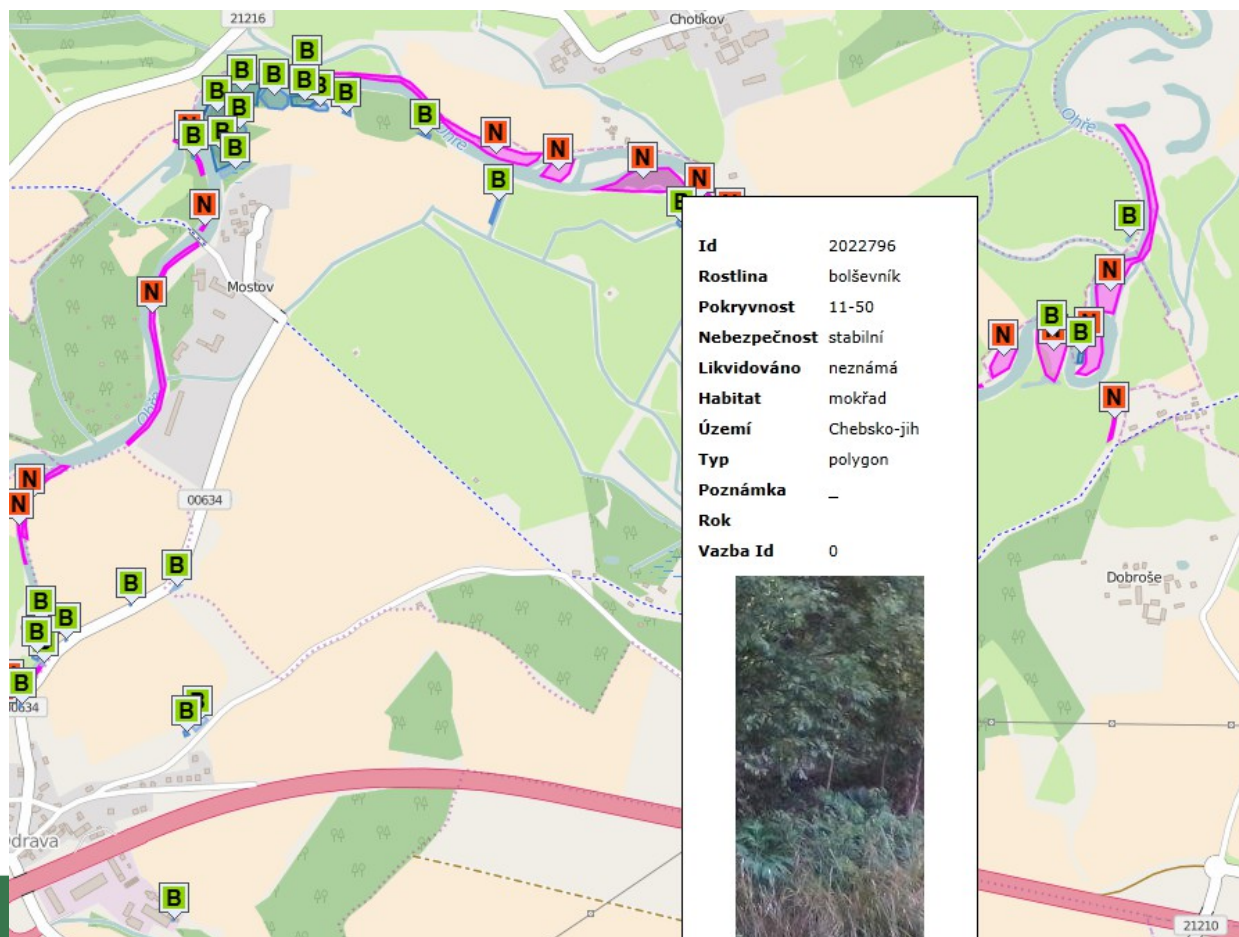
Monitoring activities



- IS Heracleum:



OMEZENÍ VÝSKYTU INVAZNÍCH ROSTLIN V KARLOVARSKÉM KRAJI

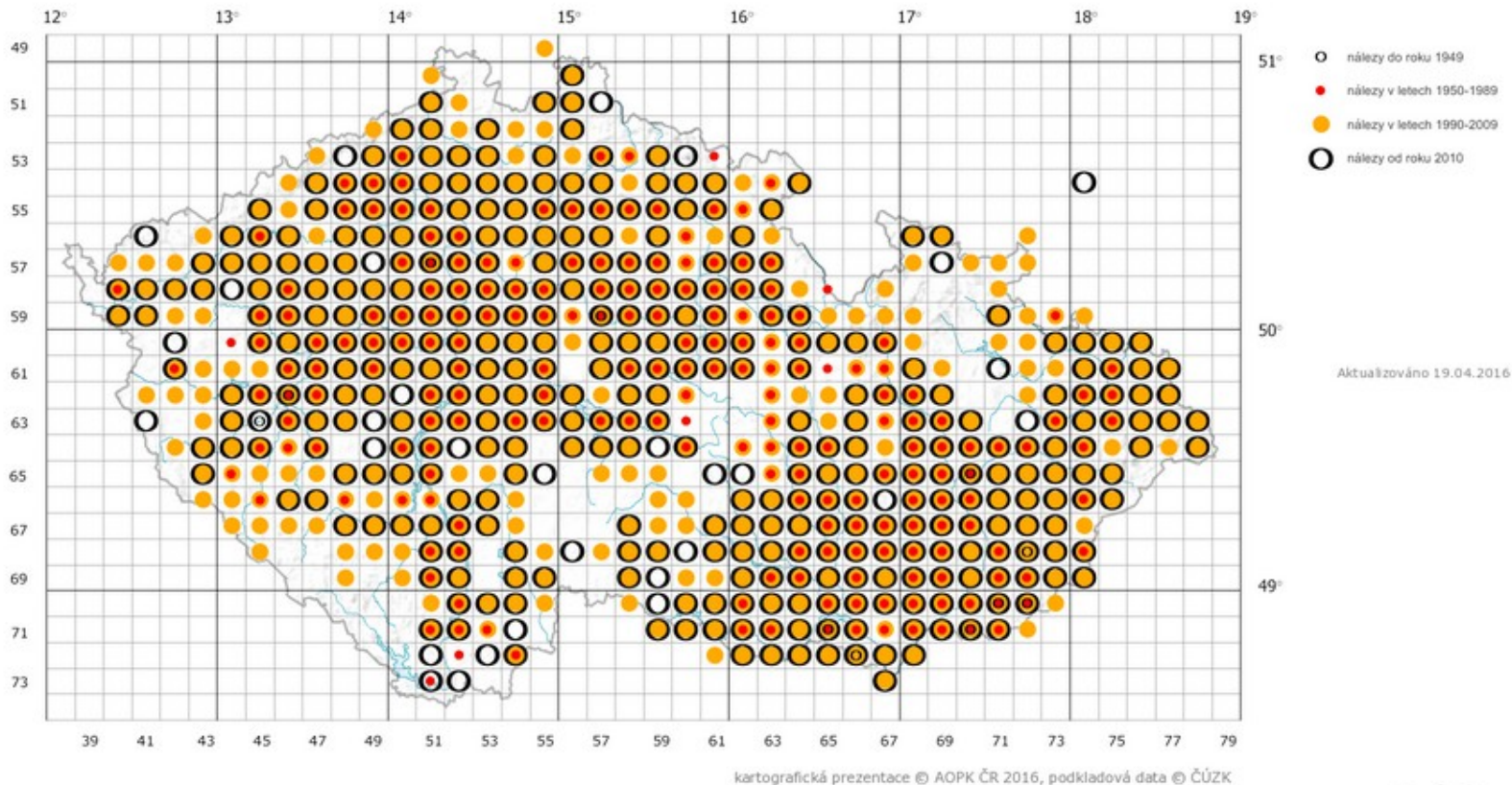


Monitoring activities



The Species Occurrence Database (Managed by the NCA CR)

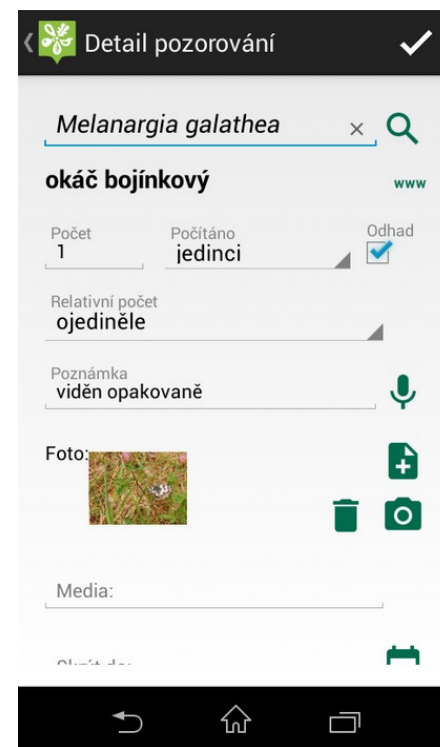
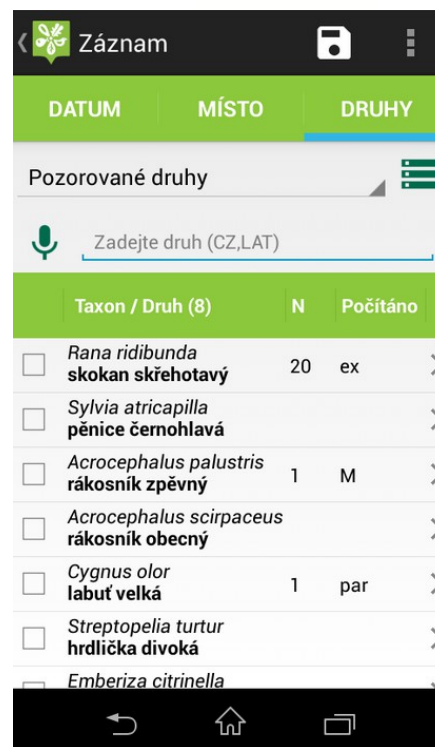
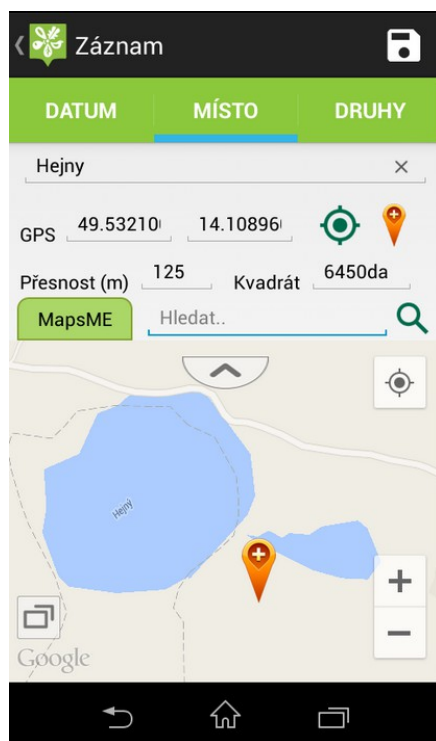
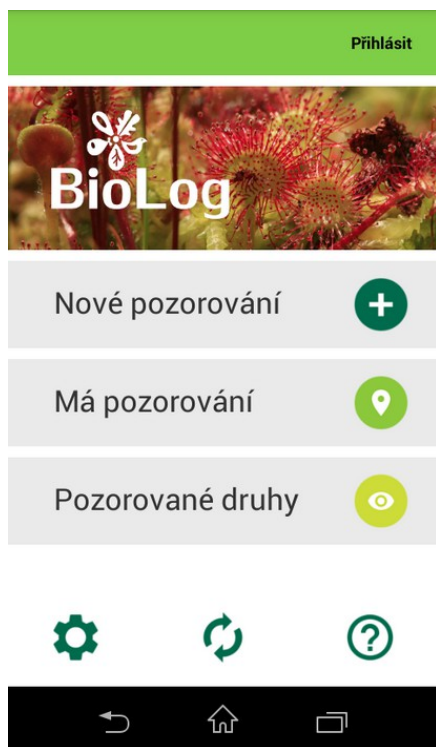
Výskyt druhu *Robinia pseudacacia* podle záznamů v ND OP



Monitoring activities



BioLog App



Eradication activities



Preservation of alluvial forest habitats in the Morávka river basin – 2007 – 2010, LIFE-Nature, € 1,014,720



The publication was prepared under the LIFE III Nature project
– Preservation of alluvial forest habitats in the Morávka river basin



legenda
— hranice Moravskoslezského kraje
— hranice projektového území



**METHODS
OF ELIMINATION
OF INVASIVE
KNOTWEED SPECIES**
[REYNOUTRIA SPP.]



Eradication activities



National funds:

- Landscape Management Programme – PPK
- Programme for restoration of natural landscape features – POPFK)
- Biodiversity Conservation (Czech Union for Nature Conservation)

Invasive species vs. hunting



Helianthus tuberosus – popular among hunters - small fields for animals

Mink, racoon, racoon dog – regulated only by certain hunters

Sika deer – some overcrowded game enclosures



Invasive species vs. agriculture



Energetic woody plants (poplars, willows)

New species (*Paulownia* tree):

- first attempts to establish plantations
- no experiences with plantation
- lack of research activities in the subject of cultivation





Invasive species

Introduction

Legislation

Species information

Projects and manuals

Links

Contacts

Search

[Invasive species](#) >> Links

Links

Lists and descriptions of alien and invasive species in the Czech Republic:

Černý K., Hejná M., Kolářová Z., Mrázková M., Romportl D. 2013. An overview of selected alien invasive fungal pathogens of woody plants in the Czech Republic [pdf](#)

Lusk S., Lusková V., Hanel L. 2011. Black List alien invasive fish species in the Czech Republic. Biodiverzita ichtyofauny ČR (VIII):79-97. [pdf - in Czech](#)

Mlíkovský J., Stýblo P., eds., 2006: Alien species of Czech flora and fauna, ČSOP Praha, 496 pp.

Pyšek P. et al., 2012: Catalogue of alien plants of the Czech Republic (2nd edition): checklist update, taxonomic diversity and invasion patterns. – Preslia 84: 155–255. [pdf](#)

Šefrová H., Laštůvka Z., 2005: Catalogue of alien animal species in the Czech Republic. Acta univ. agric. et silvic. Mendel. Brun., LIII, No. 4, pp. 151-170. [pdf](#)

State Phytosanitary Administration, 2010. A brief description of regulated invasive plant species, Prague, 66 pp. [pdf - in Czech](#)

Pergl et al. 2016: Black, Grey and Watch Lists of alien species in the Czech Republic based on environmental impacts and management strategy? NeoBiota 28: 1 - 37. [link](#)

Biological invasions in general:

Simberloff D., Rejmánek M. 2011: Encyclopedia of Biological Invasions, University of California Press, Los Angeles, 792 pp.

Pyšek P., Chytrý M., Pergl J., Sádlo J., Wild J. 2012: Plant invasions in the Czech Republic: current state, introduction dynamics, invasive species and invaded habitats. Preslia 84: 576–630. [pdf](#)

Thank you for your attention

Tomas Gorner

tomas.gorner@nature.cz



**NATURE
CONSERVATION AGENCY
OF THE CZECH REPUBLIC**

www.nature.cz

