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## Beware of Danger!

*Never before have we at Academia collected together so many strictly theme-related articles as for this issue, devoted to threats of various kinds. Efforts to identify, trace, or counteract various risk factors, whether faced by mankind or by our natural and social environs, turn out to lie at the heart of a great many research projects from widely disparate domains of science.*

*Biology is one field that follows this vein of research particularly intensely, studying both endangered species and whole endangered biosystems. Certain invasive species of flora and fauna demonstrate a dangerous tendency to swiftly conquer new terrain, elbowing out indigenous species. The seemingly inconspicuous raccoon or round goby fish, for example, actually pose serious threats to the Polish ecosystems. Our article **Alien Invasion** (p 8) notes how mankind is at least partially to blame for such phenomena.*

*Of course, human-induced environmental alterations put many rare species of animals at risk. Poland's populations of the gopher-like spotted suslik, already decimated when agricultural reforms swept away much of its habitat, now additionally face the threats inherent in very low genetic diversity (**Saving the Suslik**, p 18).*

*To swim or not to swim? That is a question which plagues would-be beachgoers on the Gulf of Gdańsk in the summertime, upon seeking murky waters and alarming warnings about "dangerous blue-green algae" – signs of the ongoing **eutrophication of the Baltic Sea** (p 38). Eutrophication is widely held to be caused by water pollution, including fertilizer runoff from agricultural land, yet our article raises doubts about to what extent this might actually be a natural phenomenon, not caused by man.*

*In terms of industry, perhaps no other sector is more fraught with danger than coal mining. When outbursts of methane seep into excavated galleries, a single spark is all it takes to light an explosion. Better methods of combating the methane threat and staving off future tragedies are constantly being sought by ventilation engineers and researchers, who are developing **virtual mine models** (p 22) to find optimal airflows through complex labyrinths of corridors and shafts.*

*The social and cultural domains, too, are rife with various sorts of danger. We will take a closer look at the history, culture, and **Endangered Language** (p 14) of the Sorbians, a Slavic minority in Germany's south-east which has rebuilt its national and cultural identity in the wake of WWII and Nazi repressions.*

*In closing, we will invite you to take part in a hunt for **Shooting Stars** (p 10). Our article looks at the development of the Polish Fireball Network, which works to capture data on shooting stars and to track down meteorites which survive their rapid drop through the atmosphere to actually strike the Earth.*

### ACADEMIA staff

**The orchid *Cephalanthera rubra*, or Red Helleborine, is among Poland's endangered species**



Krzysztof Kalinowski