

Importanza della tutela degli anfibi e rettili

Sebastiano Salvidio

DIPTERIS - Università di Genova

&

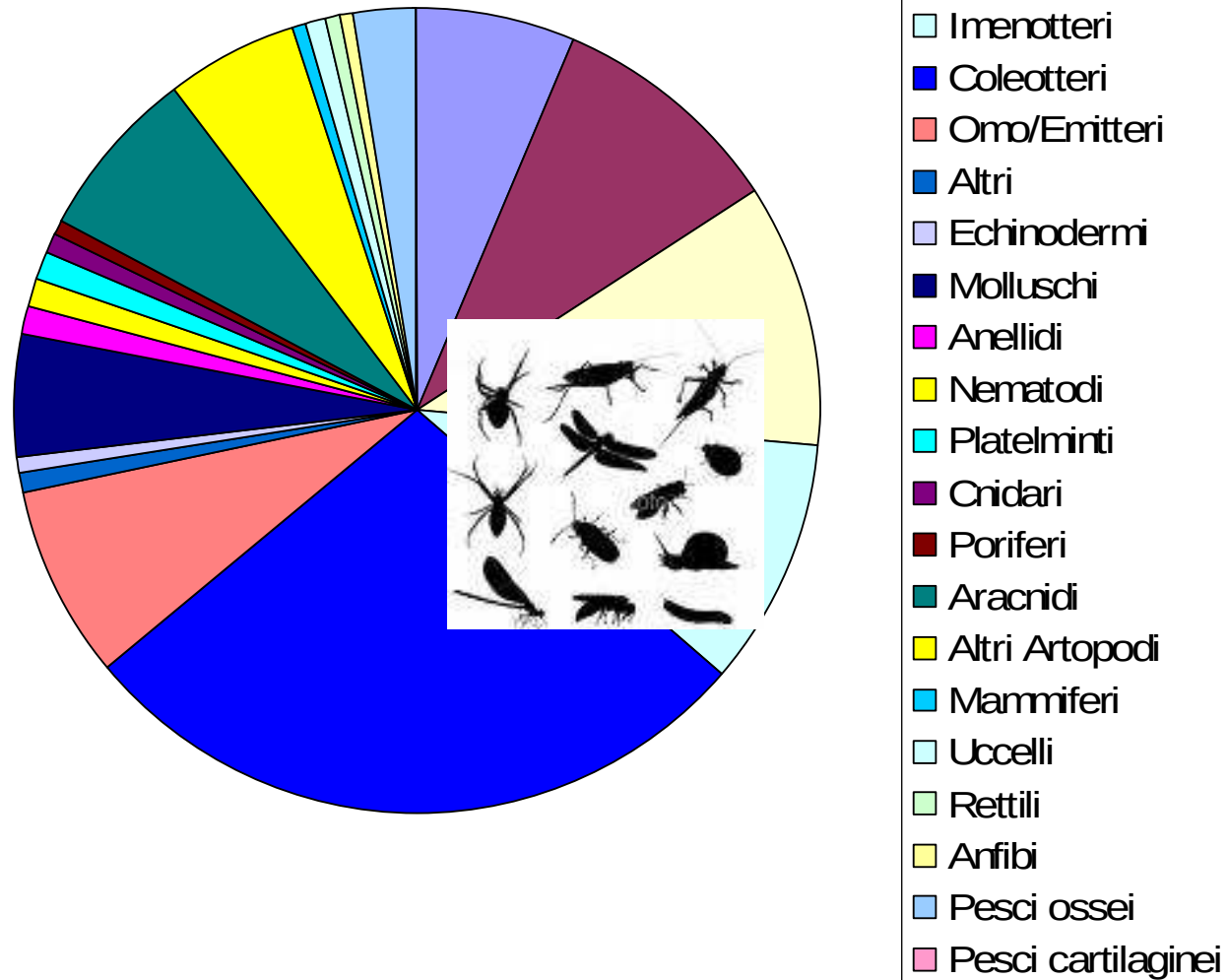


SOCIETAS
HERPETOLOGICA
ITALICA

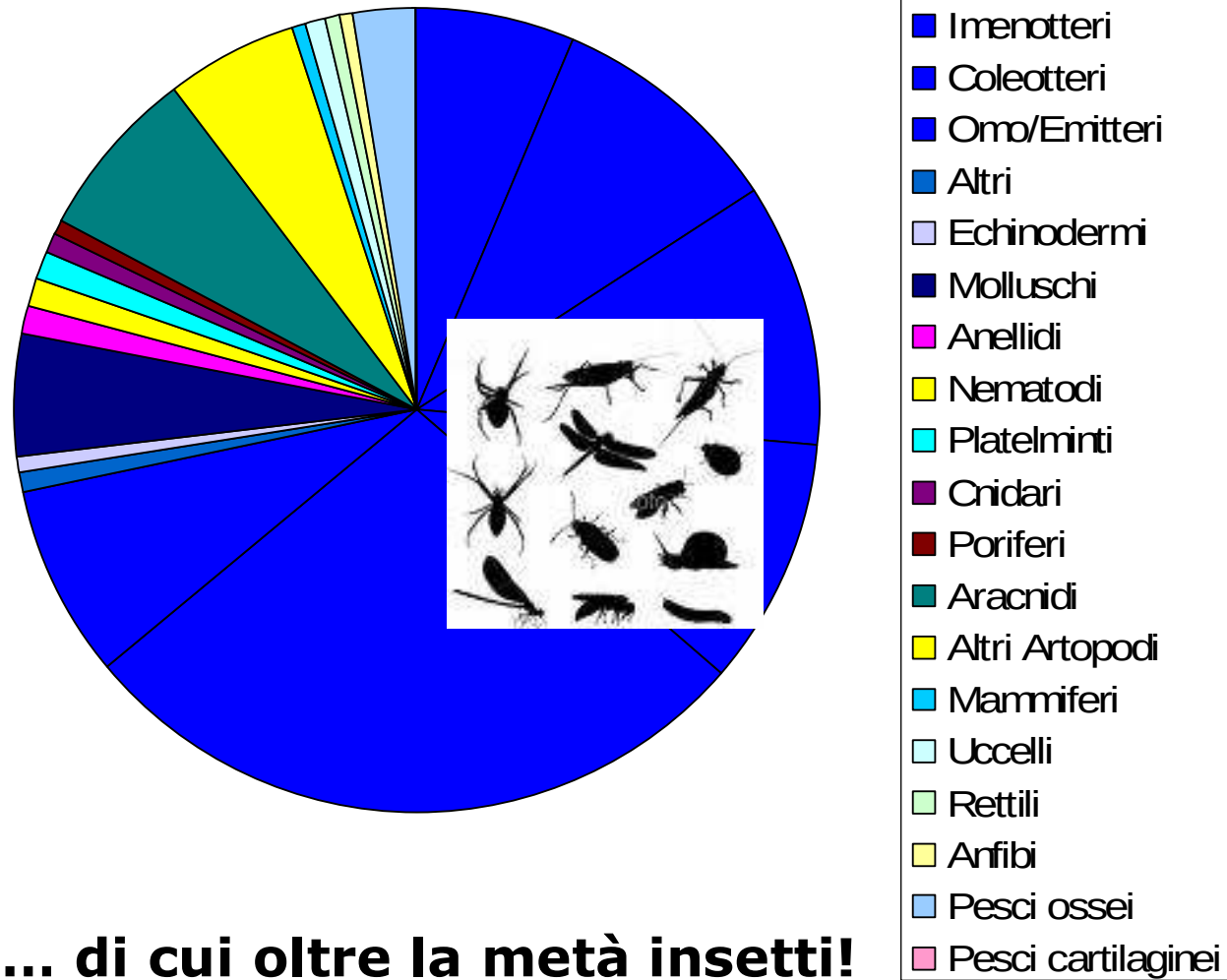
Societas Herpetologica Italica



Attualmente $\approx 1.000.000$ specie animali

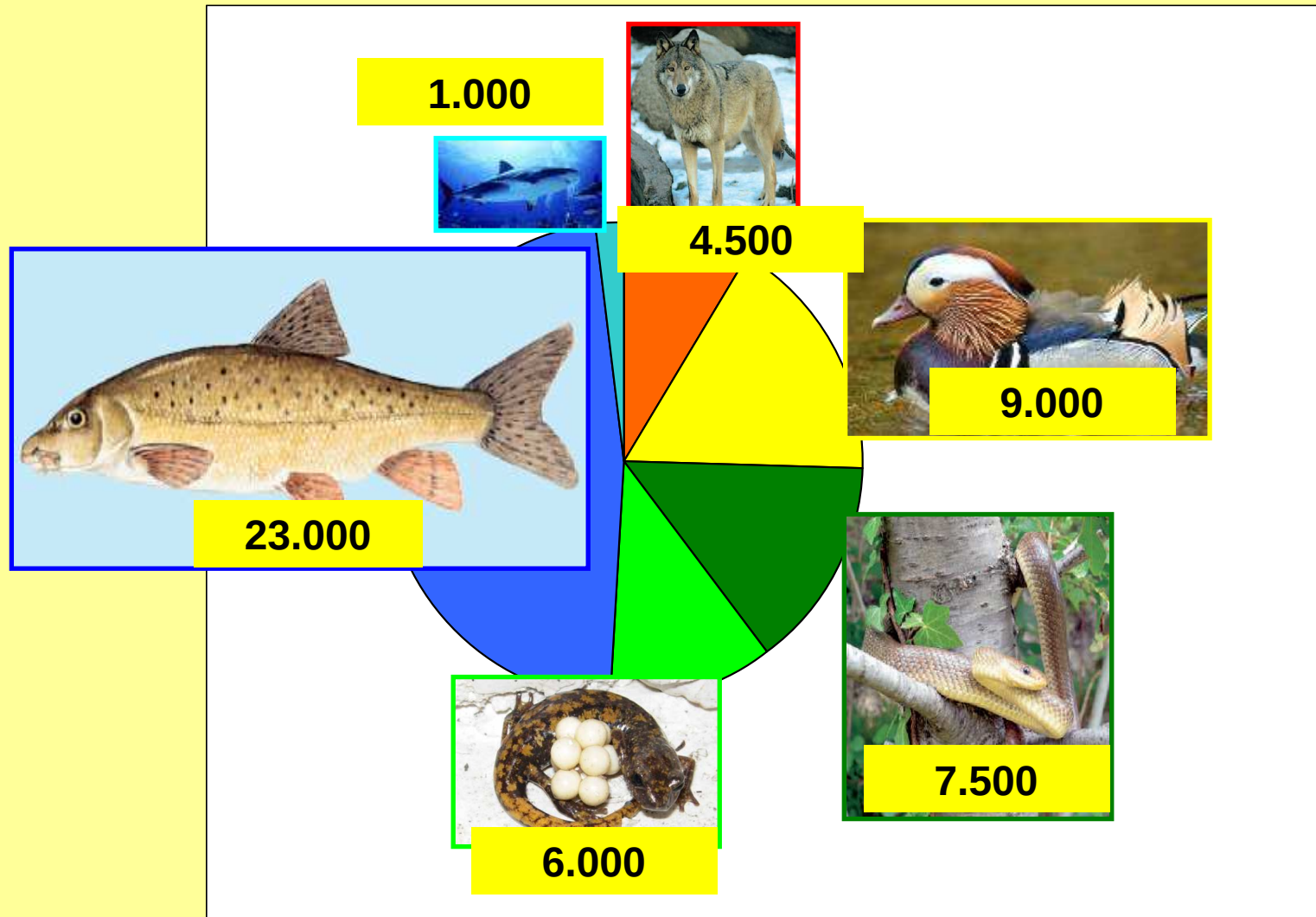


Attualmente $\approx$ 1.000.000 specie animali



... di cui oltre la metà insetti!

Anfibi e Rettili $\approx 25\%$ delle specie di vertebrati



Anfibi e Rettili in alcuni ecosistemi rappresentano:

- I principali predatori che “regolano” le comunità animali (nei laghetti alpini e nelle zone umide temporanee dove sono assenti i pesci)



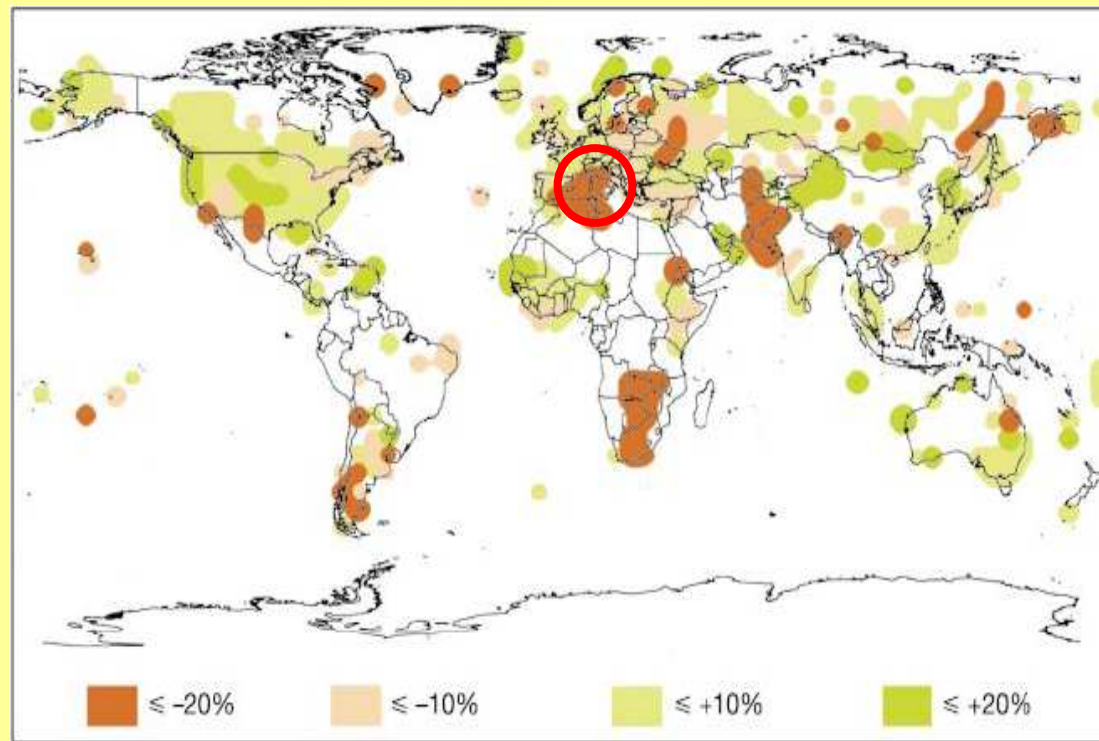
Anfibi e Rettili in alcuni ecosistemi rappresentano:

- Una percentuale rilevante della “biomassa” animale in alcuni ecosistemi (foreste temperate americane e foreste pluviali)



Anfibi e Rettili in alcuni ecosistemi rappresentano:

- Gli anelli “deboli”: soprattutto gli anfibi sono sensibili a modificazioni ambientali (inquinamento, bonifiche, cambiamenti climatici...)



Il declino degli Anfibi

- Il 12% delle specie di uccelli sono a rischio
- Il 23% delle specie di mammiferi sono a rischio
- **Il 32% delle specie di anfibi sono a rischio**



The screenshot shows the homepage of the Global Amphibian Assessment (GAA) website. At the top, there is a banner image of a tree frog on a branch. To the right of the image, the title "Global Amphibian Assessment" is displayed in a large, serif font. Below the banner, a navigation bar contains links: "Search the Database", "About the GAA", "Key Findings", "Description of Data", and "Acknowledgements".

The main content area features a paragraph describing the GAA: "The Global Amphibian Assessment (GAA) is the first-ever comprehensive assessment of the conservation status of the world's 5,743 known species of frogs, toads, salamanders, and caecilians. This website presents results of the assessments, including IUCN Red List threat category, range map, ecology information, and other data for every amphibian species."

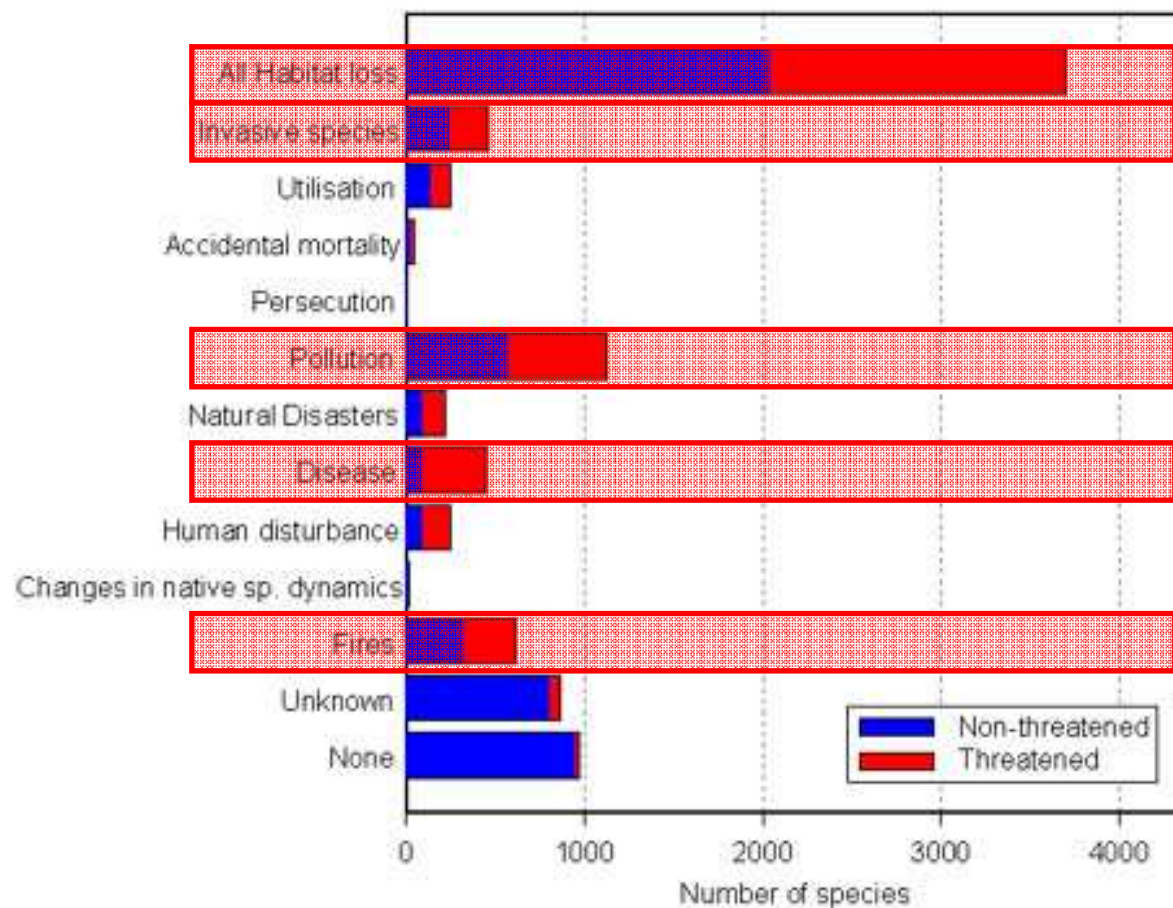
Below this text is a "Search" section with a prompt: "Search the GAA database for species by name, taxonomy, country, region, habitat type, threat type, or IUCN Red List status."

To the right of the text is a world map titled "Amphibian Diversity" with a link to "More Findings". The map uses a color scale to represent the number of amphibian species in different regions, with Brazil highlighted in red, indicating high diversity.

At the bottom left, there are three small images of different amphibians: a salamander, a blue snake, and a frog. Below these images are links: "Help", "Contact Us/Feedback", "Site Search", and "Links".

At the bottom right, there is a "Fast Fact" section with a globe icon and the text: "Brazil is the country with the most amphibians—more than 700 species."

Il declino degli Anfibi

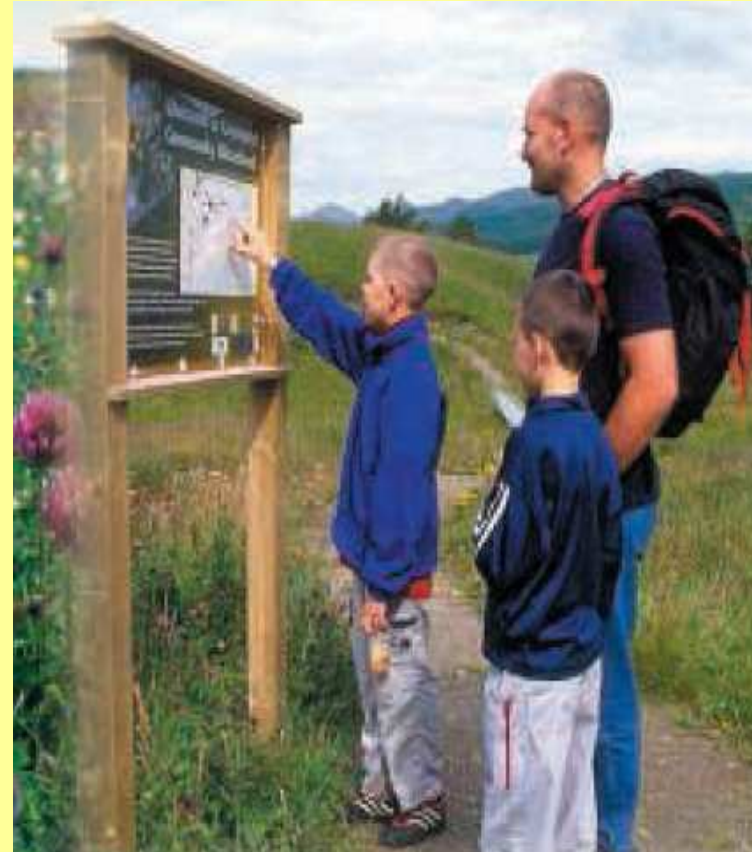


Conservare le popolazioni di Anfibi e Rettili: che fare?

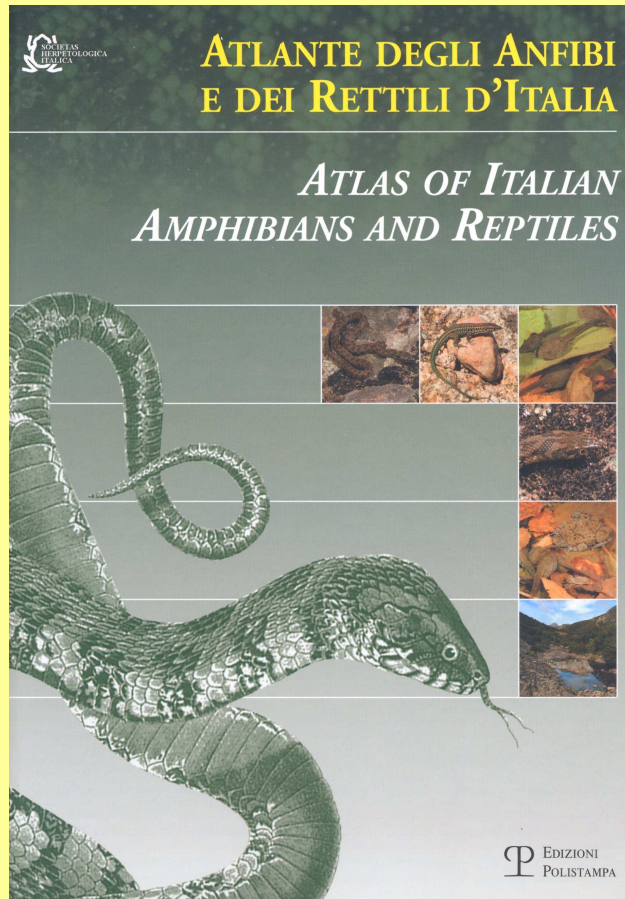


- Tutela siti per conservazione
- Studio ambienti acquat/terra
- Studio cambiamenti climatici
- Studio patologie
- Controllo sfruttamento
- Controllo inquinamento
- Riproduzione in cattività

Educare e sensibilizzare



Aumentare le attuali conoscenze



ECOLOGY

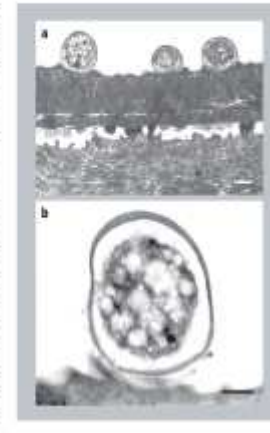
The proximate cause of frog declines?

Arising from: J. A. Pounds et al. *Nature* 439, 161-167 (2006)

Pounds et al.¹ argue that global warming contributes to amphibian declines by encouraging outbreaks in the chytrid fungus *Batrachochytrium dendrobatidis*. Although our findings agree with the climate-linked epidemic hypothesis^{2,3}, this pathogen is probably not the only proximate factor in such cases: in the Trasimeno Lake area of Umbria in central Italy, for example, the water frog *Rana lessonae* first declined in the late 1990s, yet chytridiomycosis was not observed until 2003 (refs 5, 6). Here we show that the chytrid was common there throughout 1999–2002, in a previously unknown form that did not cause disease. We therefore think that the focus by Pounds

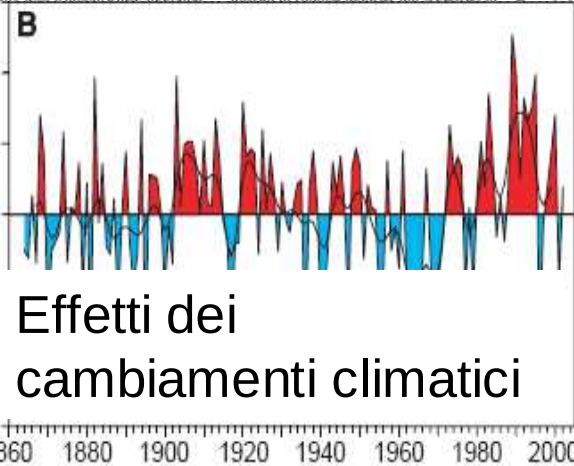
remained comparatively stable⁴. (The latter is a hybrid of *R. lessonae* and *R. ridibundus* in this hybridogenetic complex^{7,8}.) Meanwhile, a parasitic mesomycetozoean protist that is prevalent in *R. lessonae* (*Amphibocystidium ranae*)^{9,10} spread over a larger area, and we observed chytridiomycosis for the first time — in 18% of the *R. lessonae* sampled⁴.

The chytrid, however, was present long before this. During 1999–2002, we examined 400 water frogs in detail, using stereomicroscopy of epidermal surfaces, followed by light and electron microscopy of skin in histological preparations. We found no signs of chytridiomycosis: no sporangia, zoospores, or clinical toms¹¹. Every year, though, we observed rical, unicellular organisms, often with a wall, in 20–40% of the frogs sampled (1). Usually attached to the skin surface, these microbes were confined to minute patches (80–120 µm across) that were easily missed in routine biopsies but appeared in



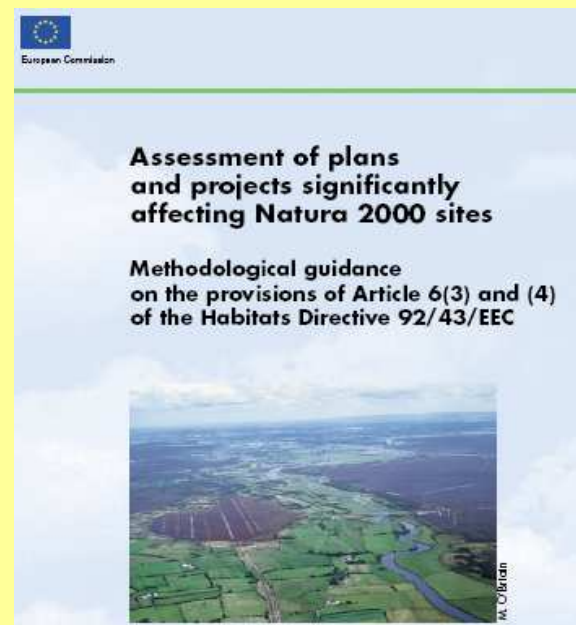
Patologie

sample progression, in which the zoospores encounter amphibian skin and quickly give rise to mycelia, which produce new zoospores¹².



Tutelare i siti, gli ecosistemi e le popolazioni

- Normative regionali (tutela fauna, flora e aree protette)
- Normative nazionali (tutela fauna, flora e aree protette)
- Normative comunitarie (Direttiva “Habitat” 4/92/CEE ...)



Tutelare i siti, gli ecosistemi e le popolazioni

Environment

European Commission > Environment > Nature & Biodiversity >

About this site | What's new

Policies | Integration | Funding | Resources | News & Developments



NATURE & BIODIVERSITY	Invasive Alien Species
EU Biodiversity Policy	NEW Public Consultation on YOUR VOICE "Invasive Alien Species European Concern"
EU Nature Legislation	
Natura 2000 Network	
Outside Natura 2000	This internet consultation will be open for 8 weeks from 3 March 2008 until 5 May 2008

Tutelare i siti, gli ecosistemi e le popolazioni



The screenshot displays the official website of the Convention on Biological Diversity. At the top, the logo and name of the Convention are visible. Below this is a navigation bar with links to 'The Convention', 'The Protocol', 'Programmes', 'Mechanisms', 'Information', and 'Secretariat'. A search bar is located on the right side of the navigation bar. The main content area features a breadcrumb trail: 'Home > Programmes & Issues > Invasive Alien Species'. On the left, there is a sidebar with the heading '2. Resources' and a link to 'Meetings and Documents'. The central focus is the 'Invasive Alien Species' section, which is highlighted with a red border. This section includes the text 'The IAS Portal - your information gateway on invasive alien species'. To the right of this text is a photograph of several goats standing in a field, with the caption 'Invasive goats on Isabela island' below it.

Convention on Biological Diversity

The Convention The Protocol Programmes Mechanisms Information Secretariat

Home > Programmes & Issues > Invasive Alien Species

2. Resources

Meetings and Documents

Invasive Alien Species

The IAS Portal - your information gateway on invasive alien species

Invasive goats on Isabela island

Tutelare i siti, gli ecosistemi e le popolazioni



Disincentivare l'introduzione di specie alloctone o domestiche in ambienti naturali

Tutelare i siti, gli ecosistemi e le popolazioni



I pesci rossi introdotti nei lavatoi e negli abbeveratoi rendono questi siti non più idonei ai tritoni, alle raganelle e alle rane che spesso non trovano altri ambienti in cui riprodursi ...

Disincentivare l'introduzione di specie alloctone o domestiche in ambienti naturali

Tutelare i siti, gli ecosistemi e le popolazioni



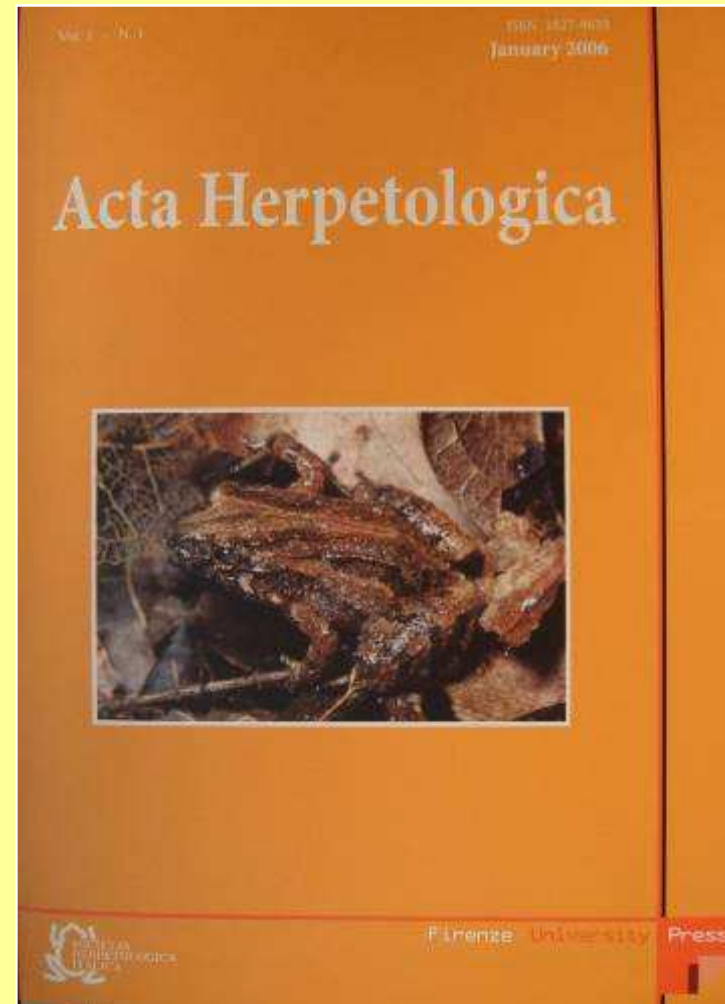
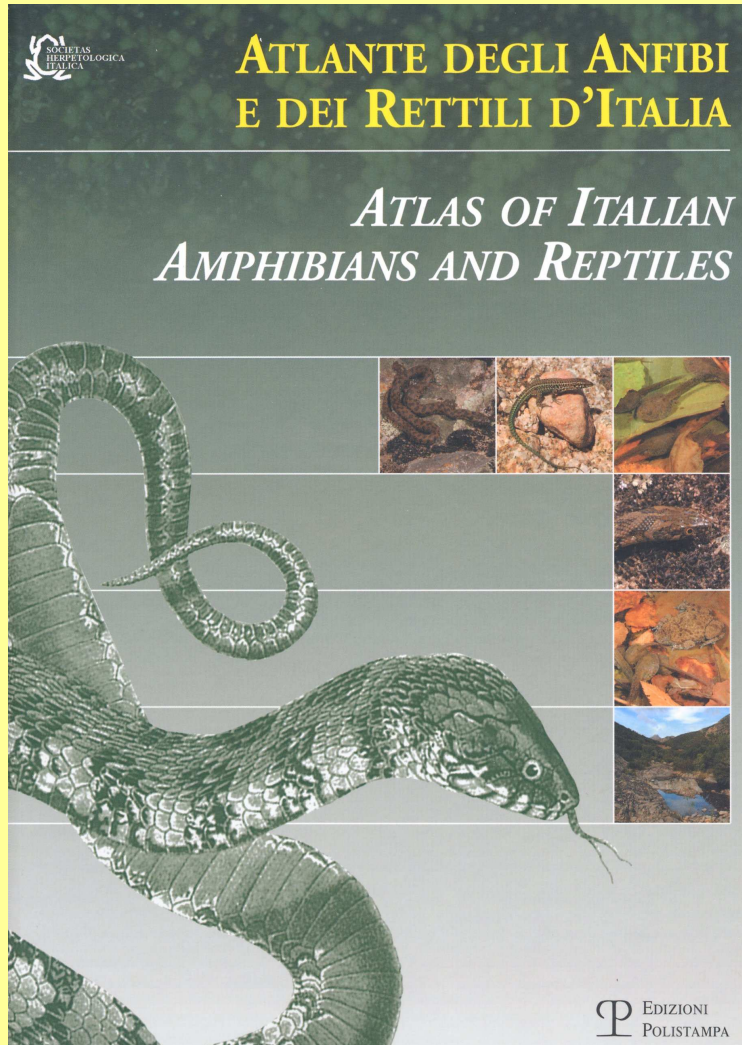
Incentivare il mantenimento “a basso costo” di habitat umidi

Tutelare i siti, gli ecosistemi e le popolazioni



Incentivare anche i privati a ricreare piccole zone umide da utilizzare non solo come “siti” come “fonte” di acqua”

Societas Herpetologica Italica SHI



Societas Herpetologica Italica SHI

www.unipv.it/webshi/

