

European LIFE Northern Bald Ibis reintroduction project

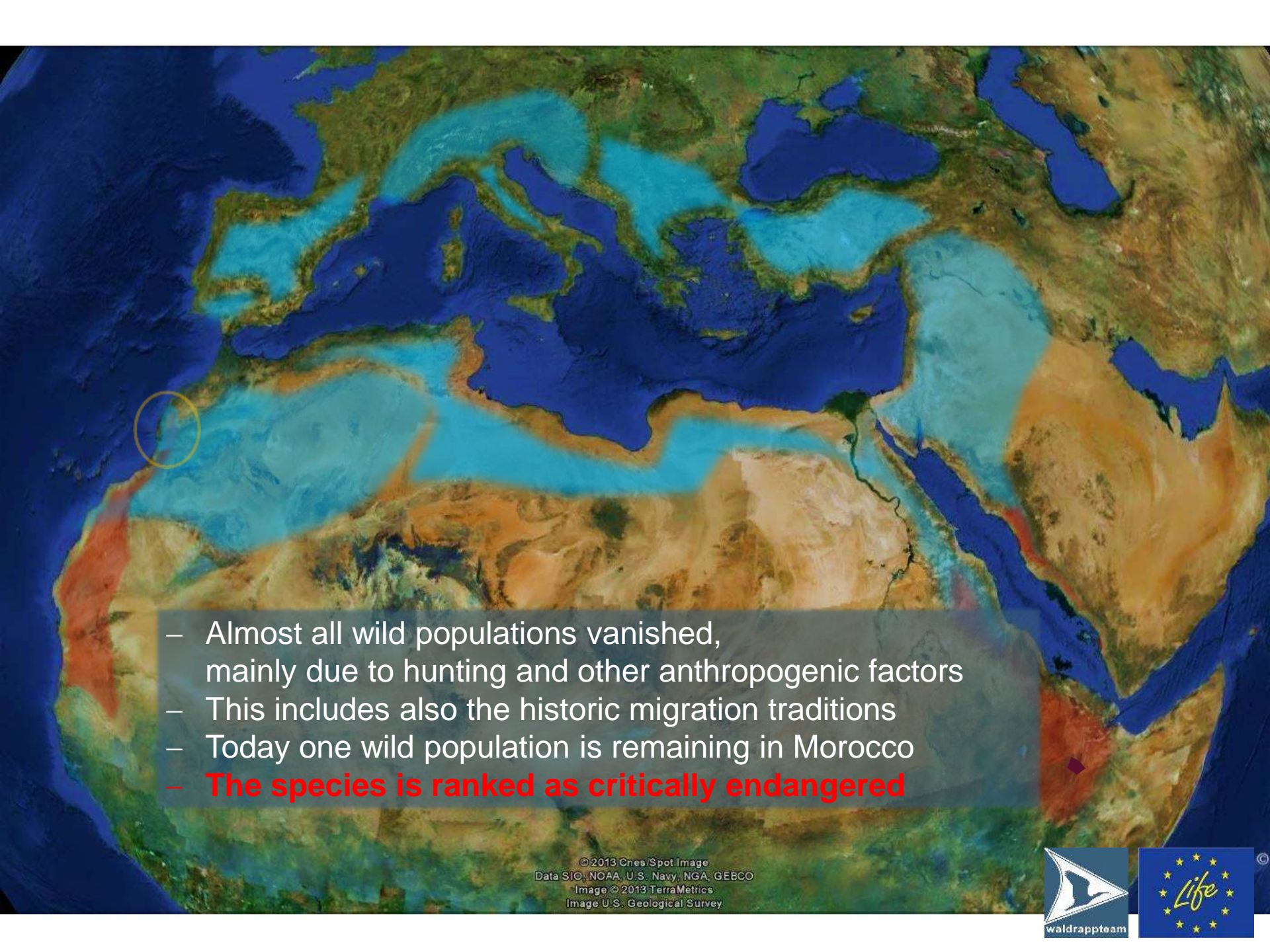


Innovative approaches against illegal bird hunting

Johannes Fritz / LIFE Northern Bald Ibis





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- Almost all wild populations vanished, mainly due to hunting and other anthropogenic factors
 - This includes also the historic migration traditions
 - Today one wild population is remaining in Morocco
 - **The species is ranked as critically endangered**



LIFE Northern Bald Ibis

Projecto Eremita

- A well managed Zoo population allows reintroduction efforts
- Currently two projects are ongoing, both in the historic European range
- Projecto Eremita in Spain aims to reintroduce a sedentary population
- LIFE Northern Bald Ibis aims to reintroduce a migratory population

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Data SIO, NOAA, U.S. Navy, NGA, GEBCO
Image © 2013 TerraMetrics
Image U.S. Geological Survey





- Actual population size ~ 110 wild living, migratory individuals, 2018 season: 10 breeding pairs with 26 fledged chicks
- It is the **world's first attempt to reintroduction a** (continentally) extinct **migratory species**
- Still a far way to go...
- We currently apply for a second LIFE period 2020+ where we aim to **exceed the threshold for self-sustainability**, estimated at about 350-400 individuals.



Main release method is social imprinting and training of zoo-bred chicks and ...





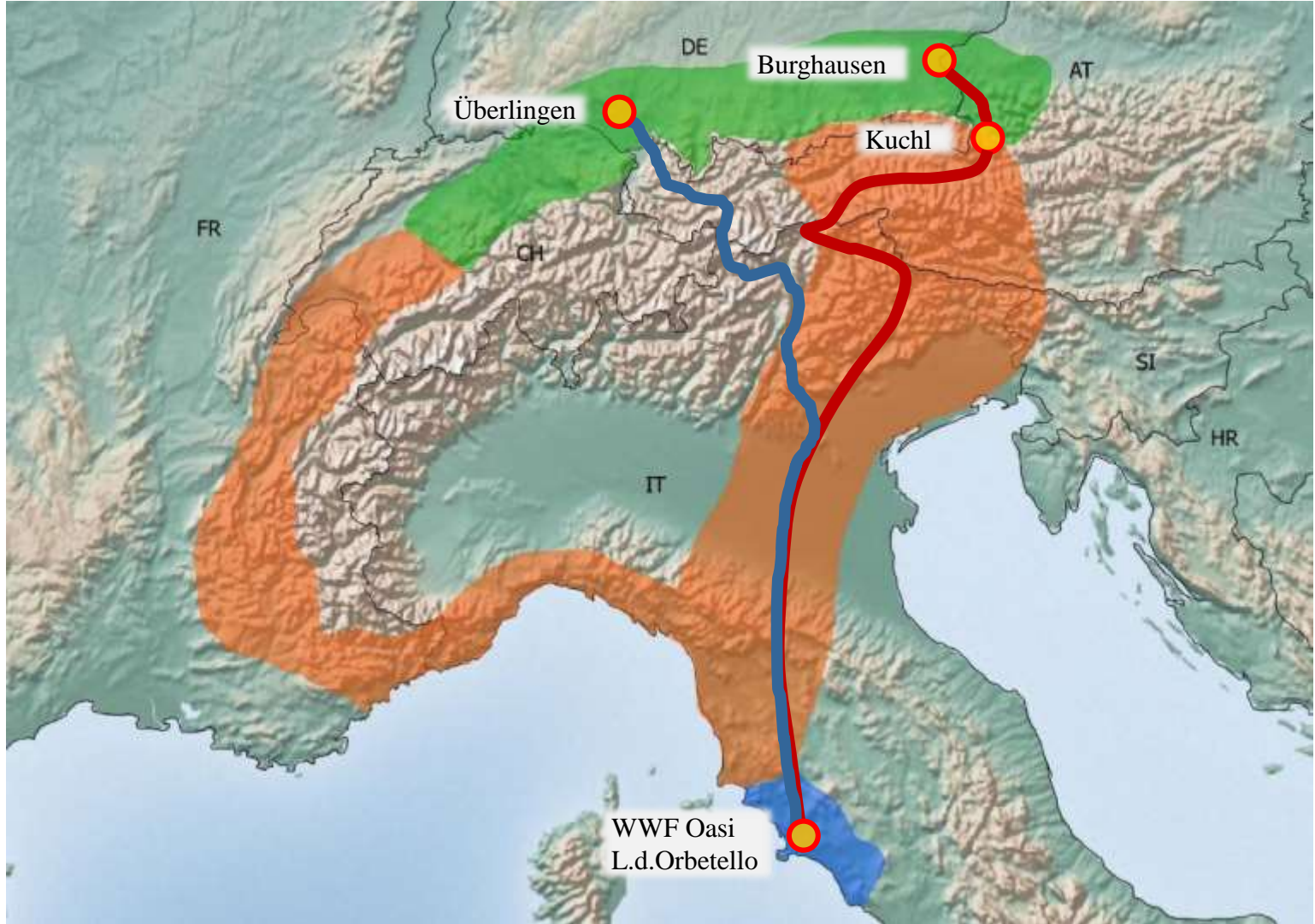
... the human-led migration across the Alps to the Tuscany.





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Whole Population Monitoring



- Basic research on bird flight and bird migration



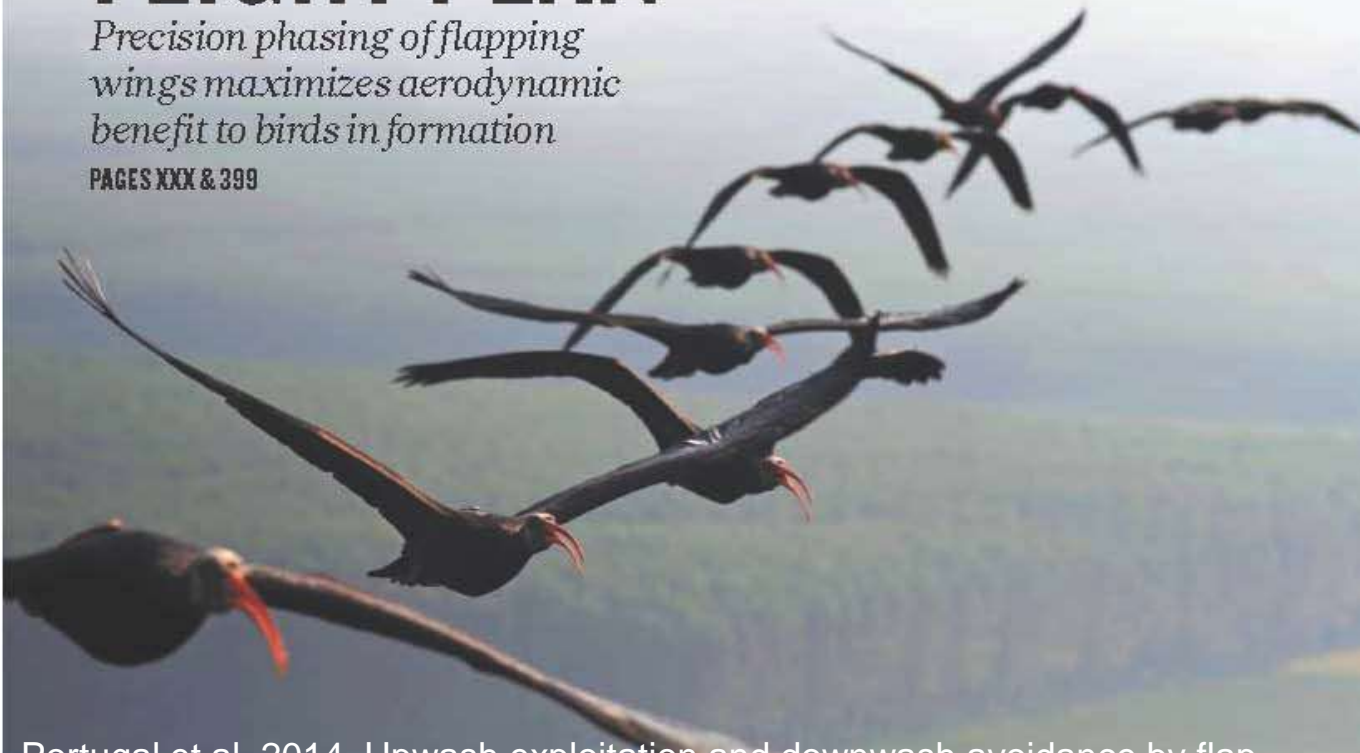
nature

THE INTERNATIONAL WEEKLY JOURNAL OF SCIENCE

FLIGHT PLAN

Precision phasing of flapping wings maximizes aerodynamic benefit to birds in formation

PAGES XXX & 399



Portugal et al. 2014. Upwash exploitation and downwash avoidance by flap phasing in ibis formation flight. *Nature*, 505, 399-402.

Frontiers in
Biology



Whole Population Monitoring



- Basic research on bird flight and bird migration
- Monitoring and investigation of the migration behaviour



Whole Population Monitoring



- Basic research on bird flight and bird migration
- Monitoring and investigation of the migration behaviour
- Quantifying the mortality causes on a population level
-> **Indicator & Flagship Species**
- Optimizing measures against two major threats





Measures against **electrocution on medium voltage power poles**
in cooperation with network operators





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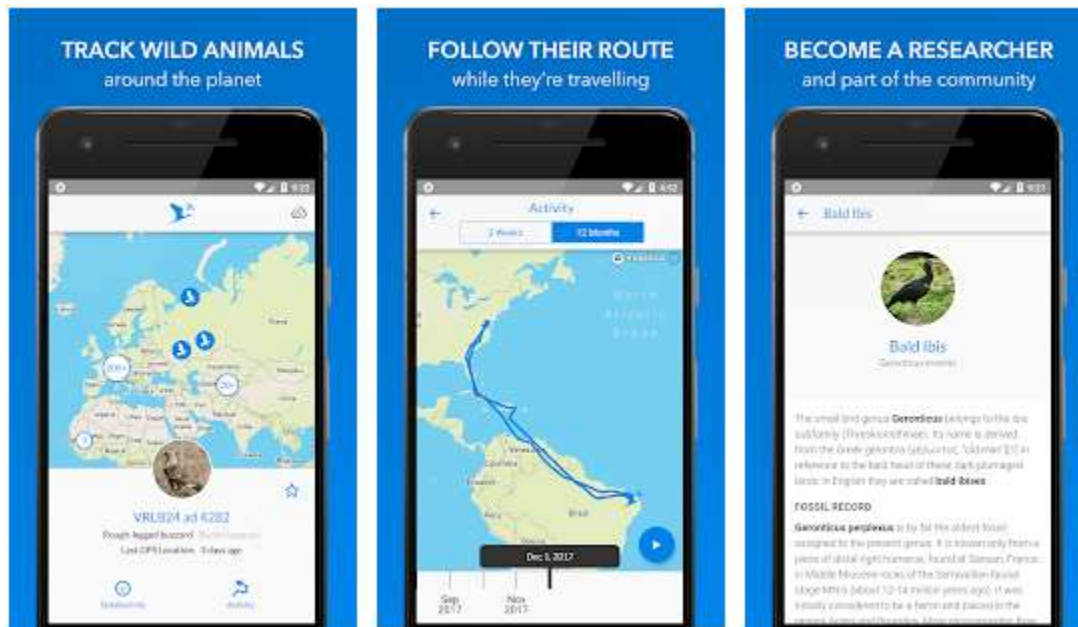


Campaign against **ILLEGAL BIRD HUNTING**





Animal Tracker

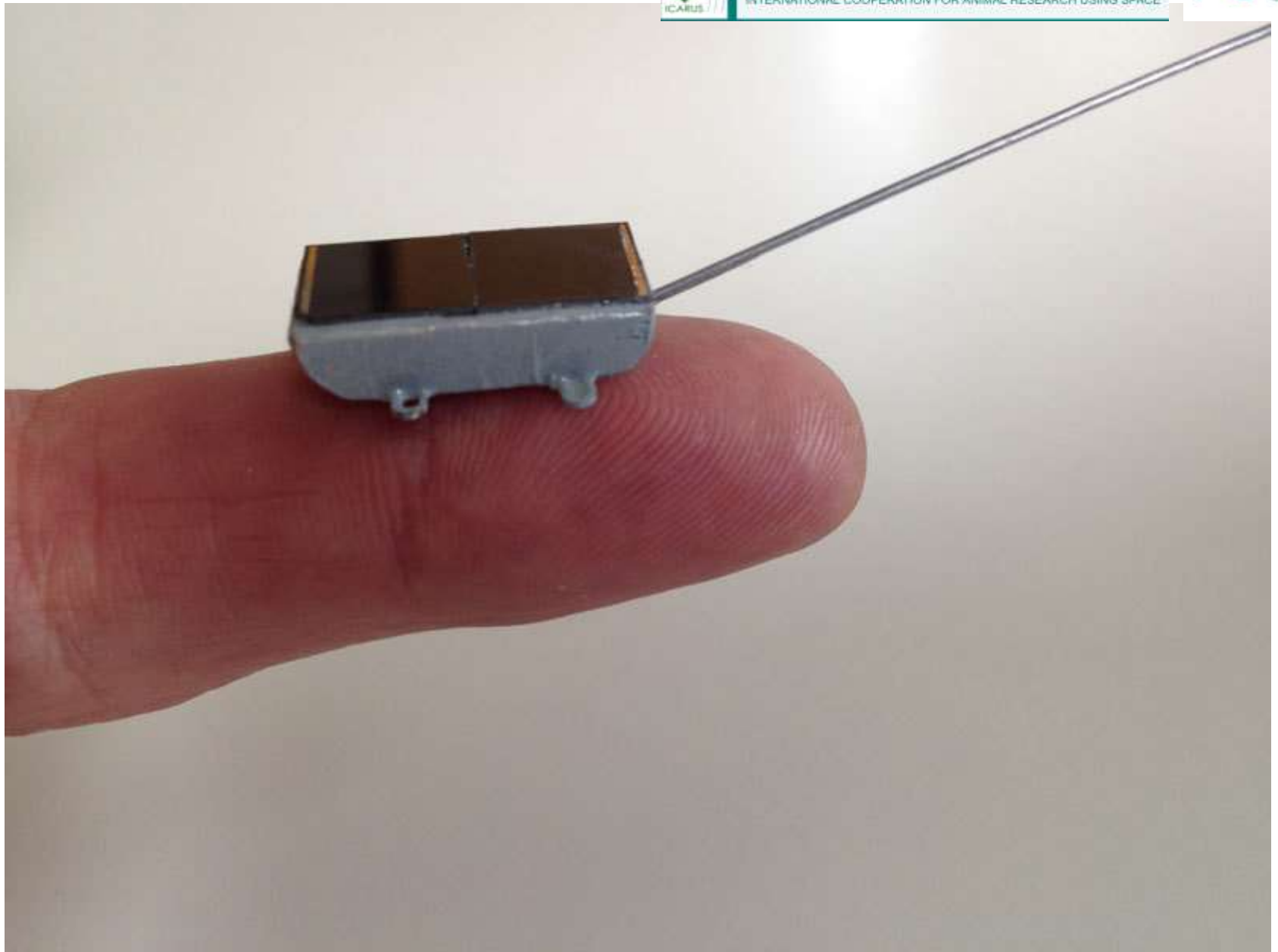


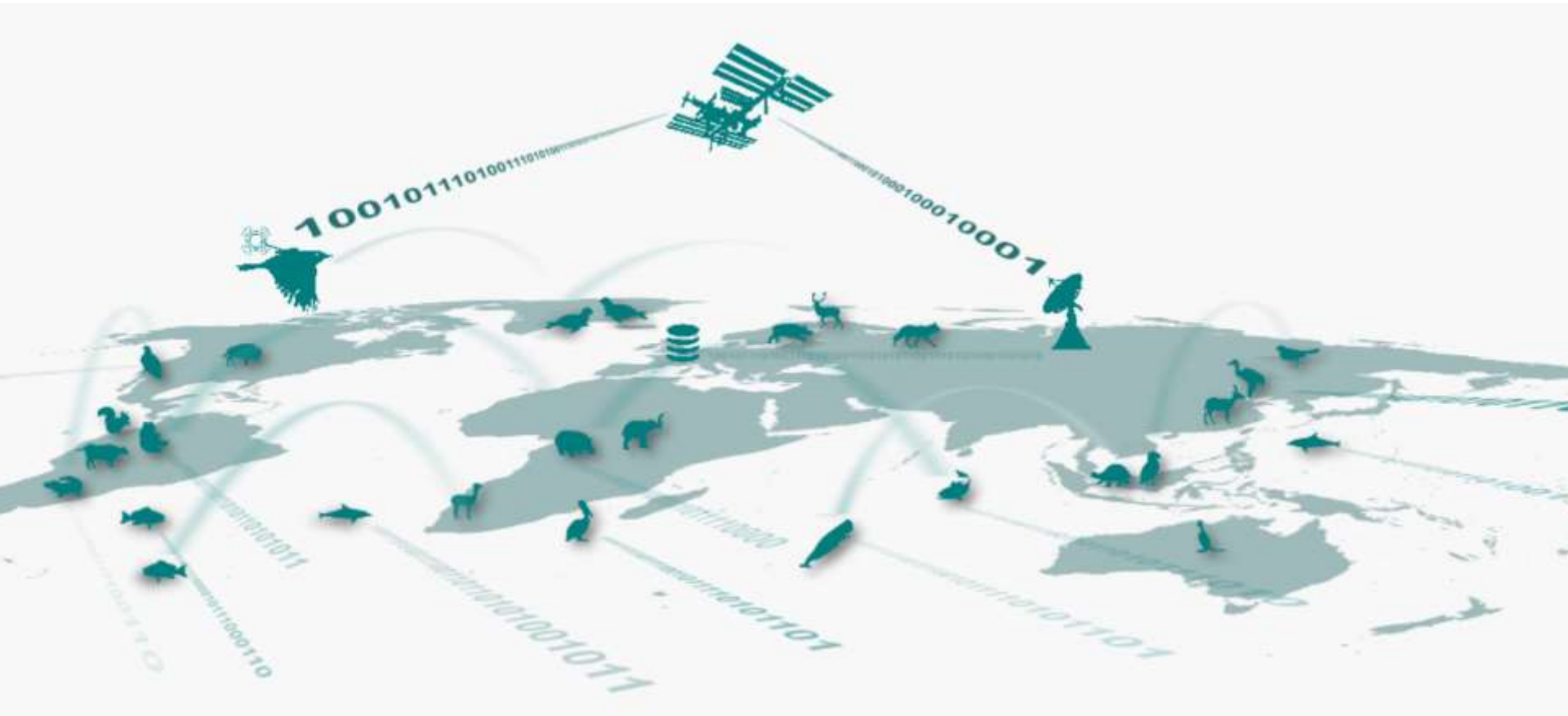
MAX-PLANCK-GESELLSCHAFT





Installation of an antenna for the ICARUS system
at the International Space Station ISS





The ICARUS animal monitoring system

Instant Poaching Alert System (IPAS)

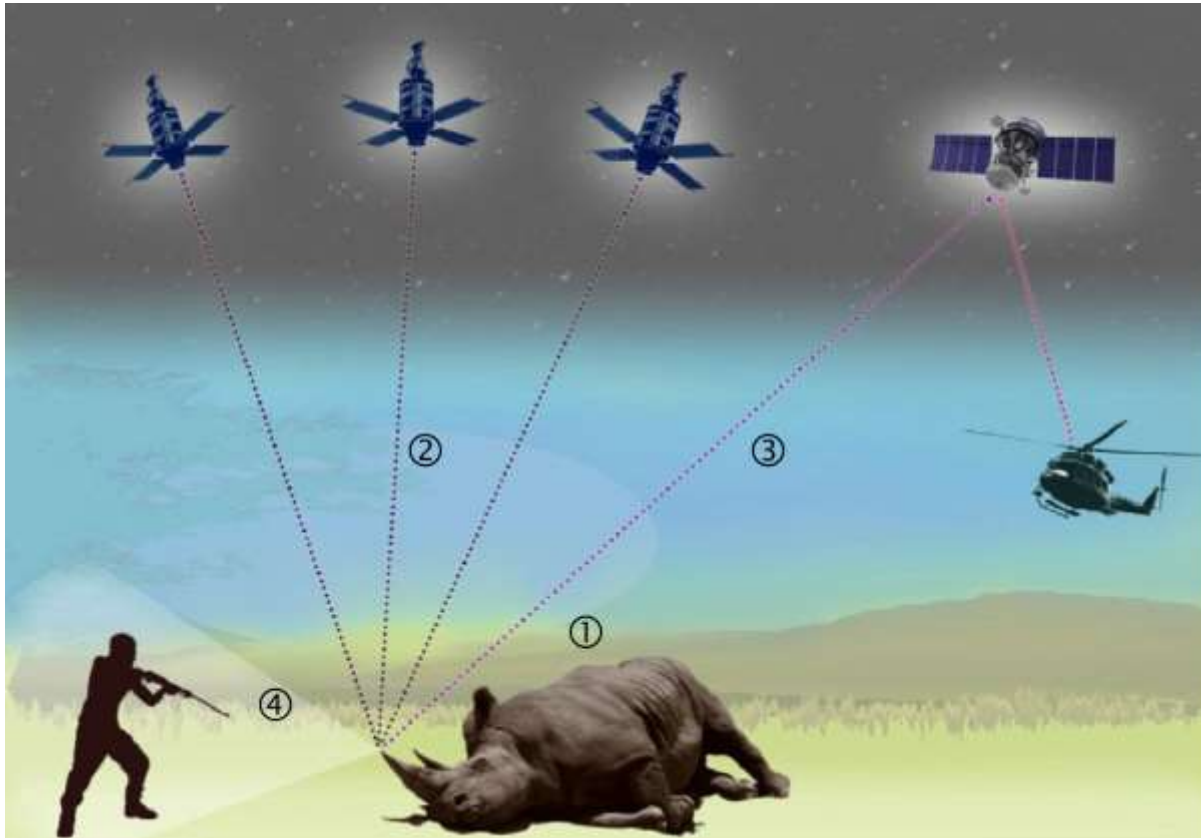


Global trade in illegal wildlife parts has an estimated economic value of \$7–10 billion annually.

O'Donoghue & Rutz 2016. Real-time anti-poaching tags could help prevent imminent species extinctions. *Journal of Applied Ecology*, 53, 5–10.



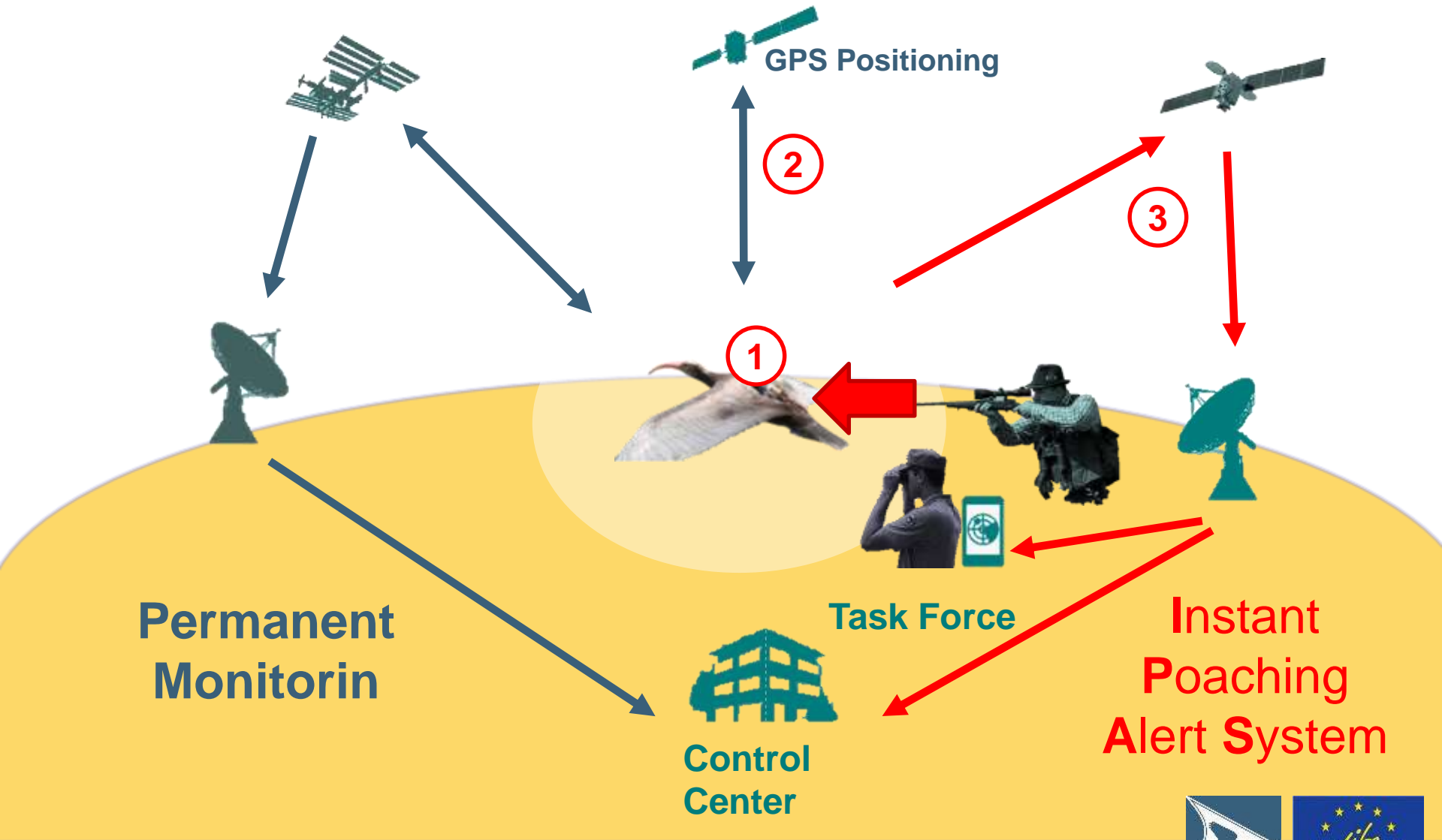
Instant Poaching Alert System (IPAS)



The system mainly aims to increase the probability that offenders are identified at the crime scene.

O'Donoghue & Rutz 2016. Real-time anti-poaching tags could help prevent imminent species extinctions. *Journal of Applied Ecology*, 53, 5–10.

Instant Poaching Alert System (IPAS)



Instant Poaching Alert System (IPAS)

- Autonomous long-life system
- “One-shot” Tag
- Not a preventive measure per se, but a **substantial deterrent effect** is expected
- Development with three model species



- Key partners for development and implementation



Thank you for your attention!



Bilder & Videos: M Unsöld, C Esterer, A-G Schmalstieg, P Przesang, R Bateman, J Fritz
Animationen und Videos: colourFIELD tell-a-vision, RedBull Servus TV



Mit 50 % Unterstützung des Finanzierungsinstrumentes LIFE der Europäischen Union (LIFE+12-BIO_AT_000143, LIFE Northern Alps)