Species and trophic guilds for pan-European monitoring

Nico, Richard, Antonio, Rafa



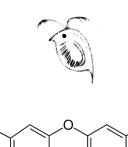
Aims of monitoring

Substance oriented (*with* raptors) Species oriented (*for* raptors/conservation)

Species of choice



- Accumulation potential of substance
- Metabolism of substance by species
- Complexity of food web

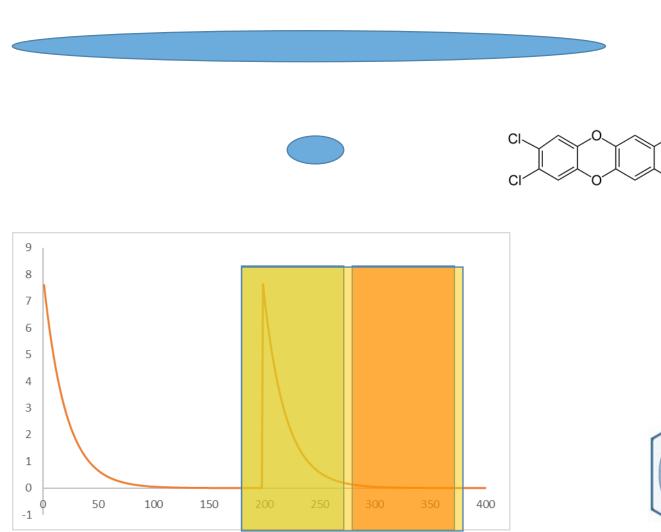




Species of choice

Spatial configuration







Species of choice



- Food web relationships
- Spatial overlap
- Temporal connection

• Species

- Specialists versus generalists/opportunistic feeders?
- Territorial versus larger home ranges, migratory?
- Abundant versus rare species?

Substance

- Usage pattern, environmental distribution
- Fate within environment and food web

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996	Environment International	3
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R	journal homepage: www.elsevier.com/locate/envint	1

Invironment International 67 (2014) 12-2

An overview of existing raptor contaminant monitoring activities in Europe

P. Gómez-Ramírez A*, R.F. Shore ^b, N.W. van den Brink ^c, B. van Hattum ^d, A.J. García-Fernández ^a, B.O. Helander ^h, V. Jaspers ^{i,j}, O. Krone ^k, E. Martíne P. Movalli ^d, C. Sonne ^m

Gomez-Ramirez et al. 2014

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Use of Terrestrial Field Studies In the Derivation of Bioaccumulation Potential of Chemicals

Nico W van den Brink, *† Jennifer A Arblaster,‡ Sarah R Bowman,§ Jason M Conder, || John E Elliott, # Mark S Johnson, †† Derek CG Muir, ‡† Tiago Natal-da-Luz,§§ Barnett A Rattner, || || Bradley E Sample, ## and Richard F Shore†††

Van den Brink et al. 2014







For raptors: species is major focal point, based on species traits select which substance may be of concern

With raptors: substance major focal point, based on substance properties select which species may show proper signals that can be interpreted



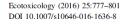
Species of choice

Practical considerations

Connect to WP3 and WP4

Output for this action Scientific paper

- Species traits and chemical properties, linking species and chemicals for monitoring
- Linking to output of WP3/4 with practical considerations
- White paper on the use of raptor monitoring in chemical regulation.



Tracking pan-continental trends in environmental contamination using sentinel raptors—what types of samples should we use?

S. Espín^{1,2, ·} A. J. García-Fernández¹ · D. Herzke³ · R. F. Shore⁴ · B. van Hattum^{5,16} · E. Martínez-López¹ · M. Coeurdassier⁶ · I. Eulaers^{7,14} · C. Fritsch⁶ · P. Gómez-Ramírez¹ · V. L. B. Jaspers^{7,8} · O. Krone⁹ · G. Duke¹⁰ · B. Helander¹¹ · R. Mateo¹² · P. Movalli¹³ · C. Sonne¹⁴ · N. W. van den Brink¹⁵

Espin et al. 2016



