

Preliminary research of microplastic from cave sediments, Croatia



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Summary

- ✧ NETWAP and plans for future research
- ✧ Microplastic
- ✧ Caves
- ✧ Materials & methods
- ✧ Selected freshwater and anchialine caves with preliminary results



NETWAP



- NETwork of small "in situ" WAsTe Prevention and management initiatives
- From January 2019 to December 2020.
- Project will include:
 - ≡ Comprehensive data collections about plastic particles in water, sediment and beach sediment in target areas and whole Adriatic sea
 - ≡ Finding world best practice in plastic and microplastic collection and removing from water, sediment and beach sediment
- Expected results:
 - ≡ Improved SeaBin devices for low cost collection of floating plastic and microplastic
 - ≡ Proposed low tech technics for removing microplastic from beach and nearshore sediments adapted to Adriatic condition and small communities



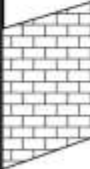
Microplastic

- ▲ Tiny plastic particles
- ▲ Primary and secondary
- ▲ Accumulated in water and sediments
- ▲ Many animals mistake them for food
- ▲ Around half of plastic in marine environment is buoyant
- ▲ Plastic debris may transport organisms
- ▲ Plastic debris can transport various pollutants
- ▲ Exposed to UV rays release harmful compounds



Fresh

ca



marine
cave

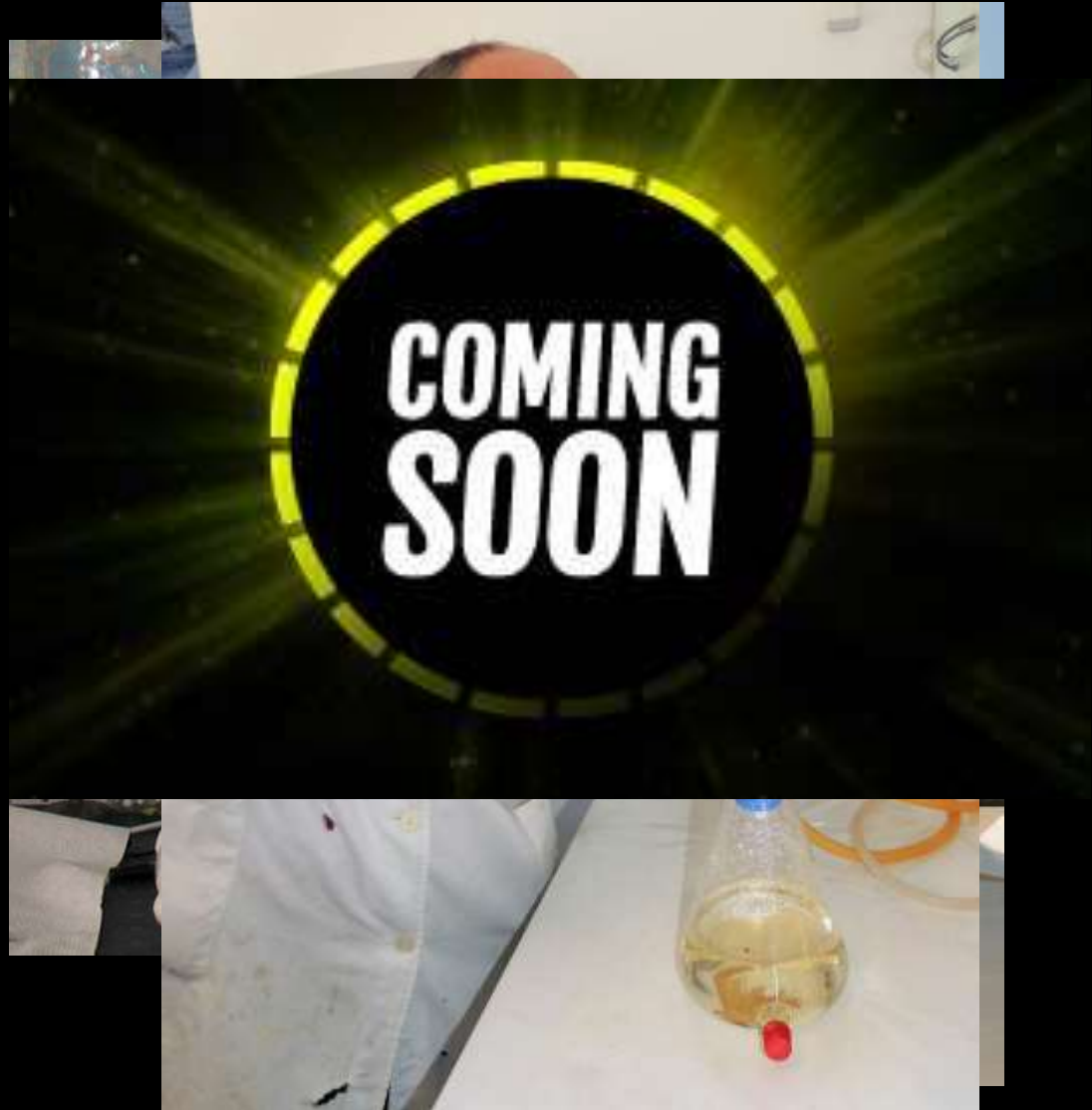


Cinzano et al 2001 Mon. Not. R. Astron. Soc. 328, 689–707.



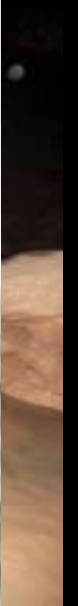
Materials and methods

-  Sampling
-  Freezdraying
-  Sieving
-  Separation
-  Filtration
-  Microscopy



Research methods



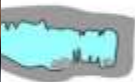




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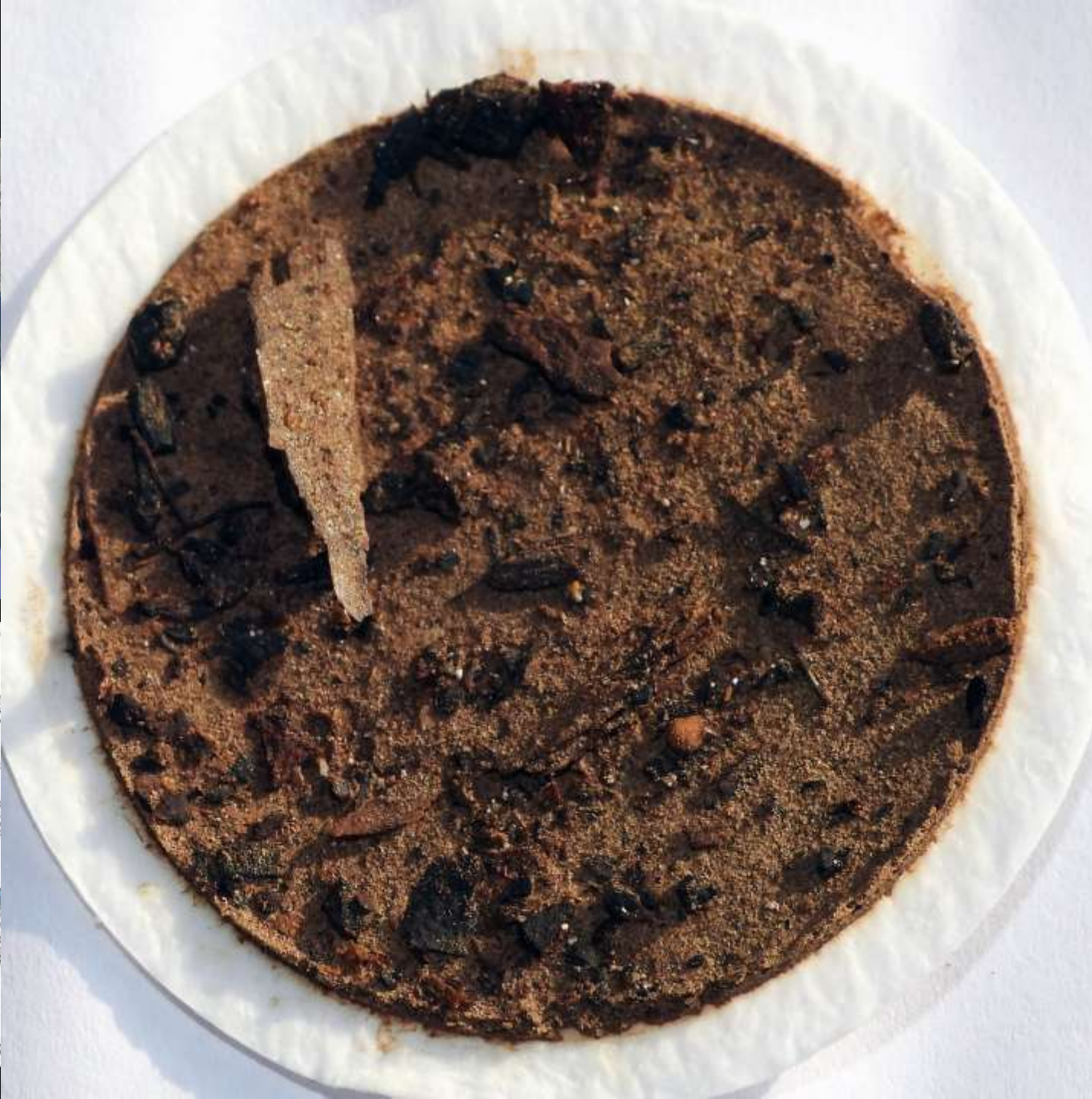


or Brief
Vodice, Plovanina

Area: 55,6m
74,3m

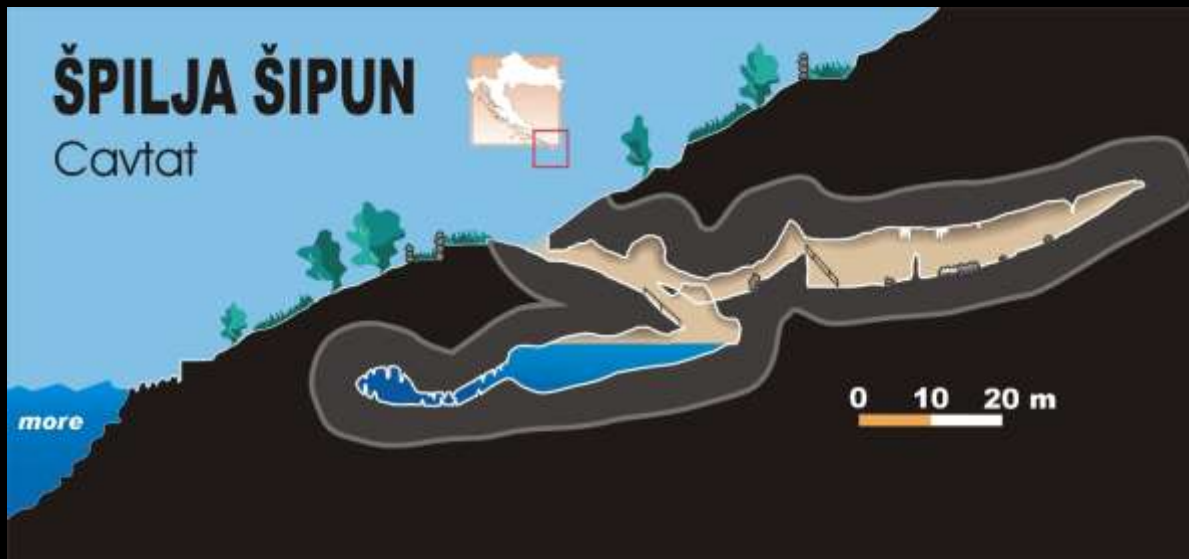
Water: Vachan (Jadik)
Aardis







Šipun



***Thanks for your
attention!***



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