

MSc thesis

**Social Media driven Tourism and Anthropogenic Litter in the most Representative Swiss Locations**

**Background**

Anthropogenic litter (AL), also known as “trash” or “garbage”, refers to any type of human-made objects which are released in the natural environment (McCormick and Hoellein 2016) in- or nonintentional. Mostly represented by plastic this phenomenon is observed in touristic locations or where waste management is lacking. After the COVID-19 pandemic, tourism increased in Switzerland and many formerly unknown locations became suddenly tourist magnets. One of the main drivers of this “getting famous overnight” phenomenon are Social media platforms, such as Instagram, TikTok and Facebook and the so-called travel influencers, that are tagging themselves to beautiful landscapes and receiving thousands of “likes” and views. An emblematic example is Cauma lake in Davos (CH), called Insta-hype location, being visited from 105’000 people per season in 2018. Such a human affluence results in a higher beach littering exacerbated by a potential insufficient waste management, transforming a pristine environment to a waste Hotspot. Nowadays, in many touristic places, such as Seealpsee (AI) cleanup events are regularly occurring, reducing significantly the Anthropogenic foot print.



*Seealpsee Lake (AI) @Serena Abel*

**Aim**

The project aims at investigating the relation between the attractiveness of recently ‘discovered’ touristic hot spots and littering.

**Possible research questions**

- What is the influence of social media on the pristiness of a specific location?
- What kind of tourism does social media advertisements attracting?
- What are characteristics of beach litter (with regard to origin, usage, and polymeric composition of the plastic component)?
- What are scientifically sound interventions for waste management in the area of interest?

**Procedures and Methods**

Depending on the major focus of interest of master student, the design of this survey can be resumed in three principal steps:

- Beach survey and litter characterization following the protocols of the MSFD Technical Subgroup on Marine Litter, 2013 and the IQAASL project (Erismann, Pesantes et al. 2021)

- Polymer characterization of the plastic litter component and provenience investigation via Attenuated total reflection (ATR).
- Investigation of the main social media driven tourism hotspots in Switzerland and the functionality of their waste management policies with the potential collaboration of an expert in Social-science.

### **What we offer**

To fulfill the proposed project, the prospective student is offered close mentoring and inclusion into an interdisciplinary and interactive team. The team has a track record in working with anthropogenic litter and microplastic as well as FTIR (see further research: <https://mgu.unibas.ch/en/research/anthropogenic-pollution-of-the-environment/>). Access to necessary facilities, including office space and computer, as well as laboratory will be provided. With a successful completion of the project, we also strongly support the student to publish their research in an academic journal, as demonstrated with past students (Blarer and Burkhardt-Holm, 2016; Bosshart et al., 2020; Mani et al., 2015; Straub et al., 2017), thus bolstering the student's career prospects in academia.

### **Your profile**

Ideally you speak German, since the project would require communication with local waste management authorities. You should further enjoy working systematically and carefully, and display eagerness to explore the scientific literature on the topic.

### **If your interest is peaked, please contact:**

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Mani, T., Hauk, A., Walter, U., Burkhardt-Holm, P., 2015. Microplastics profile along the Rhine River. *Sci. Rep.* **5**, 17988.

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