



Microplastic ingestion effects on feeding activity in an estuarine fish widespread in South America: *Ramnogaster arcuata*



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1. INTRODUCTION

Ramnogaster arcuata

small zooplanktivorous pelagic fish

Microplastics (MPs) ingestion

actively · passively

effects in feeding and general health

We evaluate the levels and types of MPs in the stomach content of *R. arcuata*, as well as the effect on its feeding activity

2. MATERIALS AND METHODS

Sample sites

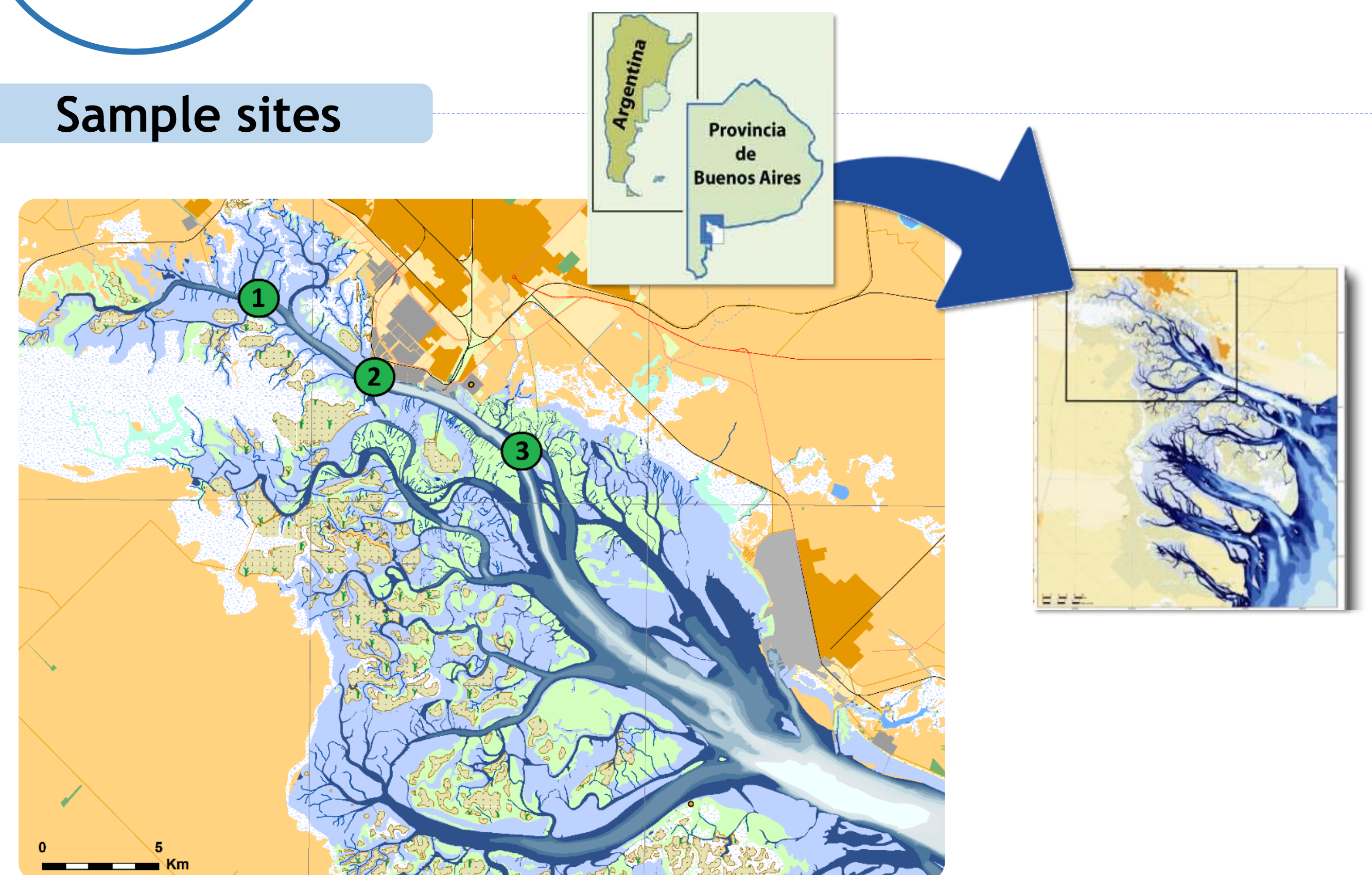


Figure 1: Sampling sites of *Ramnogaster arcuata* in Bahía Blanca Estuary (38° 40' S and 62° 09' W), area under the influence of anthropogenic pressures: 1: Cuatros Port; 2: Galván Port; 3: principal sewage discharge from Bahía Blanca city

Analyzed variables

Feeding activity

Vacuity index (VI)

Stomach fullness index (SFI)

MPs consumed

Number

Characteristics

3. RESULTS

Results show that all the specimens that were analyzed had MPs in their stomach, but we can find some differences between sites:

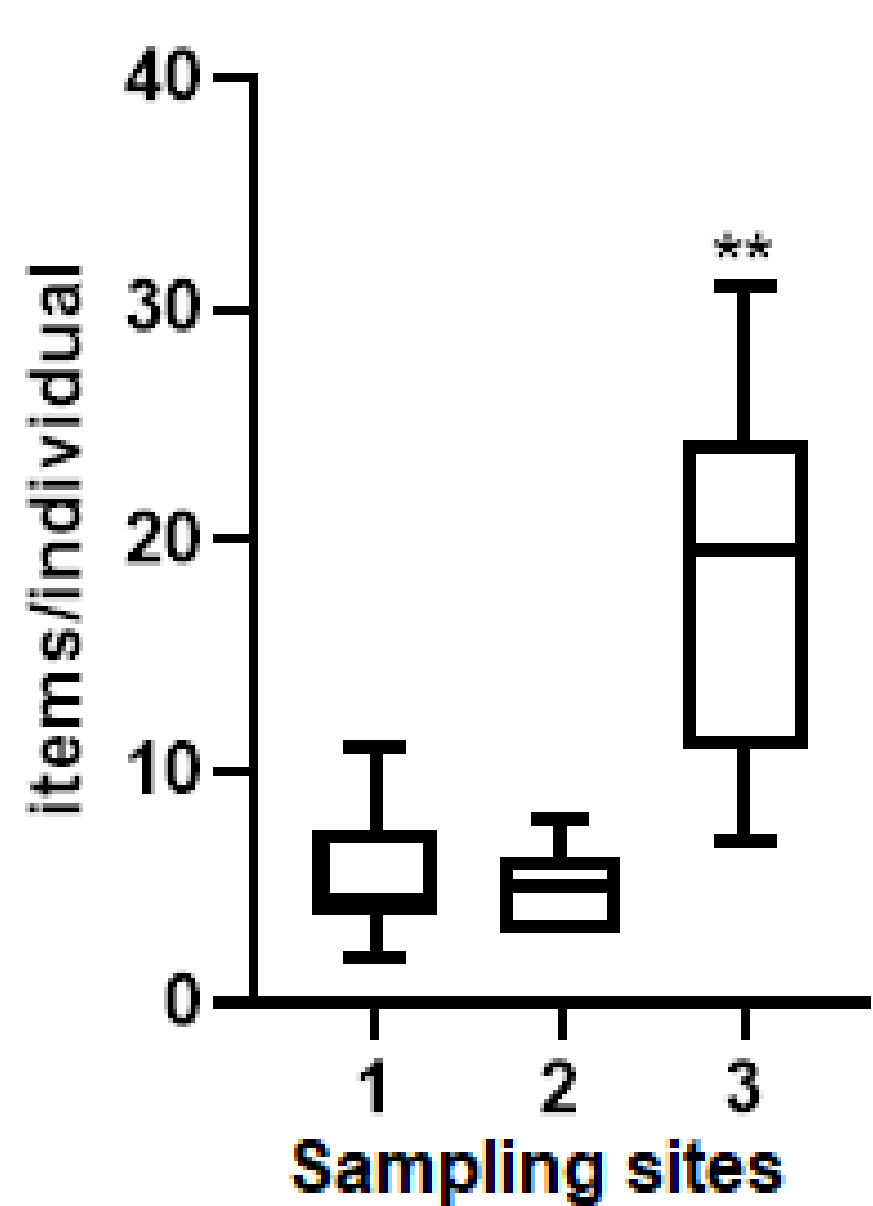


Figure 2. MPs levels between sites

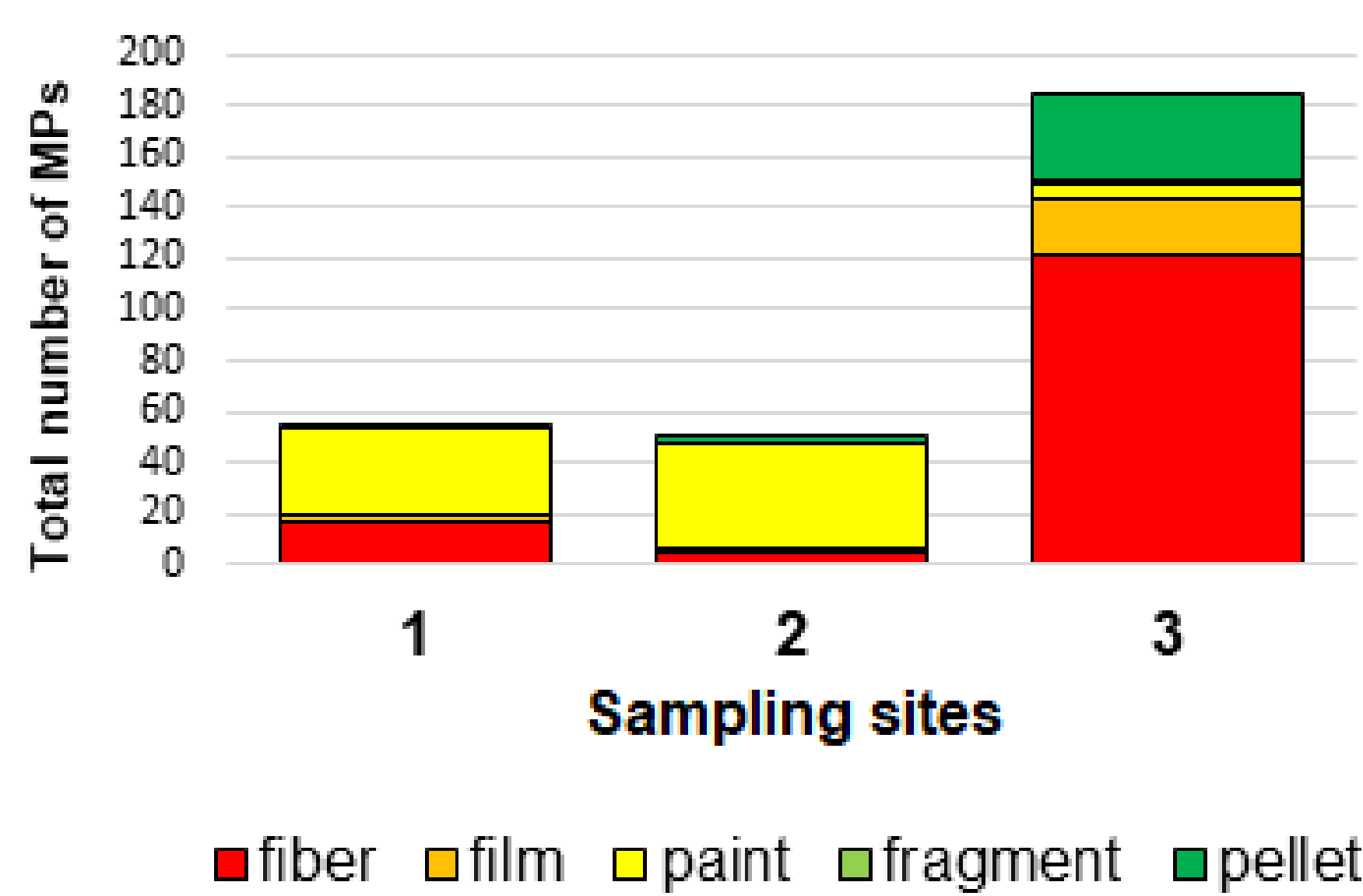


Figure 3. MPs classification by shape in the different sites

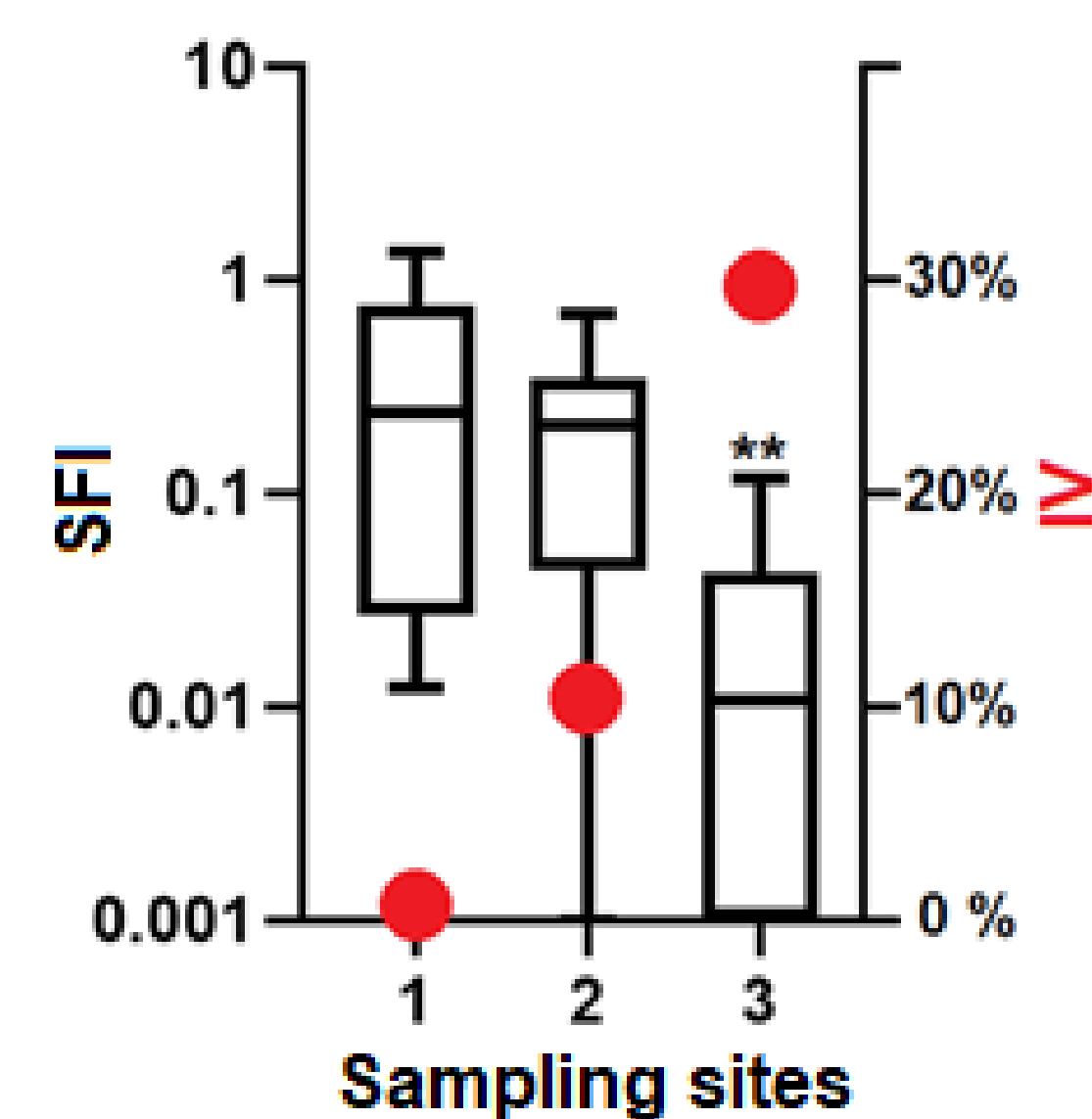


Figure 4. Comparison between SFI and VI in the different sites

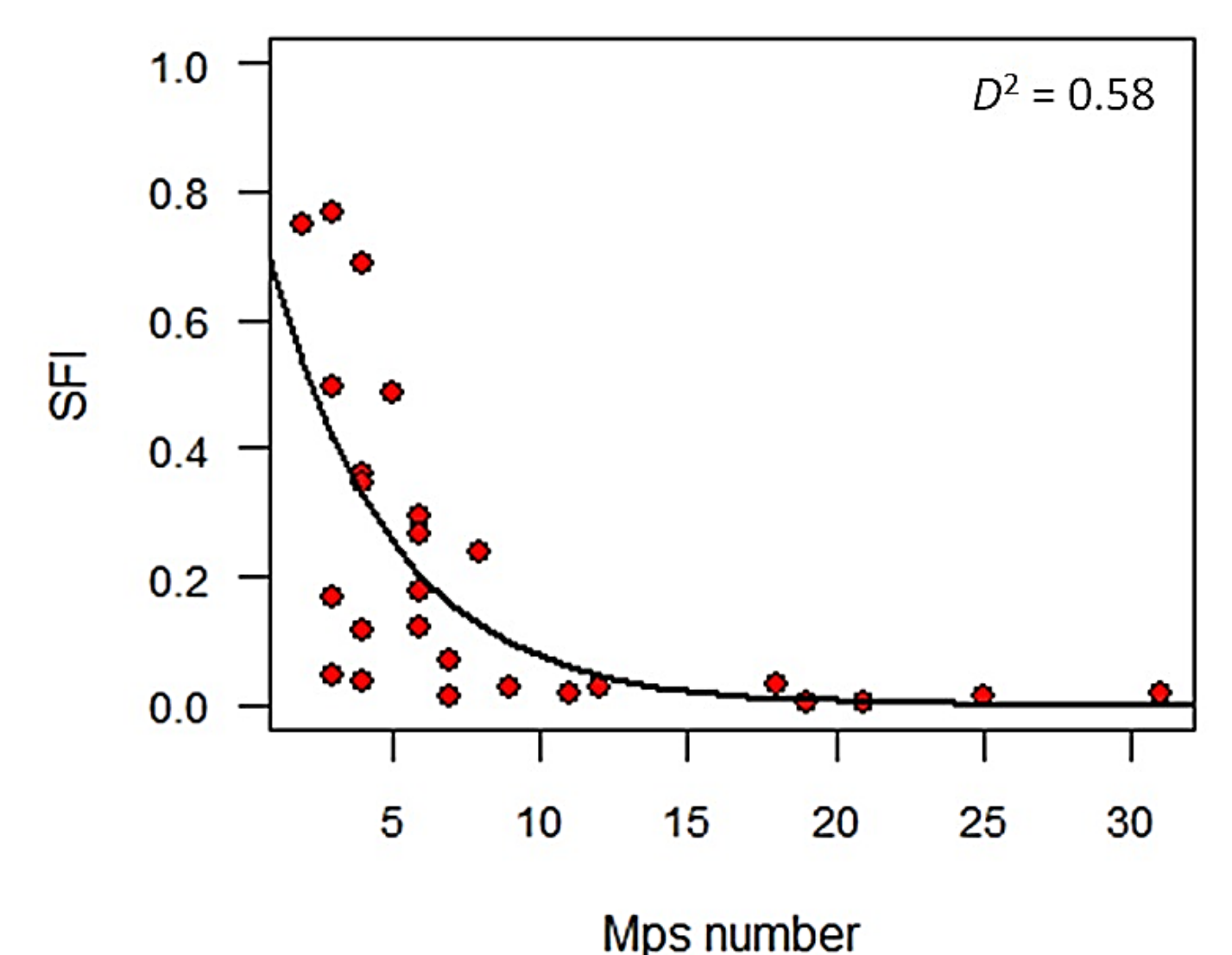


Figure 5. Non-linear relation between SFI and MPs number in stomach content

4. CONCLUSIONS

These results suggest a **negative effect** of MPs number on *R. arcuata* on feeding activity and help to elucidate part of mechanisms by which these particles enter in a bioindicator fish used in South America