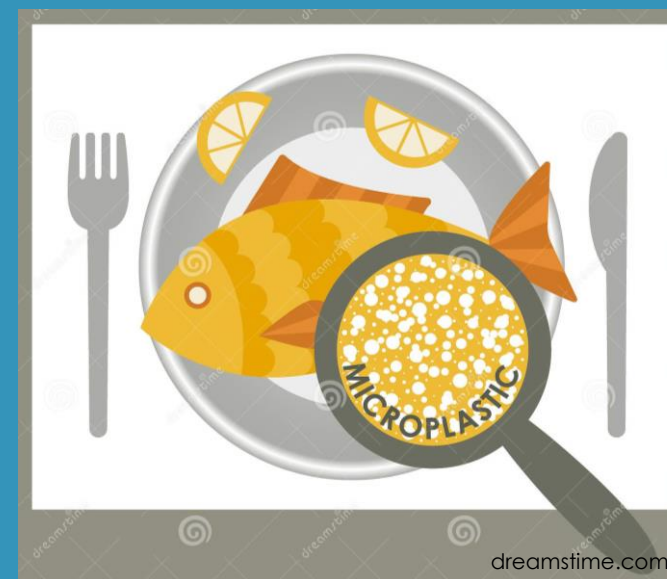


# PERCEPTIONS OF BULGARIAN CONSUMERS ON MICROPLASTICS IN FOOD: A PRELIMINARY STUDY

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# INTRODUCTION

- The intensive use of plastics - widespread distribution of plastic particles retained in the environment;
  - Microplastics (<5 mm)
  - ✓ bioavailable to organisms in aquatic ecosystems
  - ✓ introduction of toxic substances through the food chain
  - ✓ potential for bioaccumulation (Cole, et al., 2011)
  - Plastic pollution - more visible, different in this respect from other classical risks (Syberg, et al., 2018)
  - Social interest
  - ✓ reduction of plastic pollution visible in waters and coastal zones
  - ✓ concern about negative physiological and behavioral impacts on animals and other biota
  - ✓ conflict with the moral convictions of individuals (European Union, 2019)
  - More effective control of microplastic pollution
- Changing individuals' perceptions and concerns about the risk of microplastics → changes in consumer behavior*

**The aim - evaluation of the perceptions and attitudes of consumers in Bulgaria towards microplastics as a problem in general and microplastics in food.**

# METHODOLOGY

## General:

- Bulgaria
- September 2019 - January 2020
- Validation
- Total sample - 191 persons

## Questionnaire:

- Part I (4 questions) - socio-demographic characteristics
- Part II (10 questions) - information about the perception of the respondents on microplastics and their distribution in food

## Evaluation:

- Five point interval scale -“no knowledge” to “expert” or “not concerned /interested” to “very concerned/interested”
- Multi select multiple - choice type



1. How do you evaluate your knowledge about microplastics?

1  2  3  4  5  
No knowledge Expert

# RESULTS

The total sample analyzed -  
191 persons

30 % - men    70% - women

## Age distribution

42% - 18-30    35 % - 30-45    19%- 45-60    4% - over 60 years

## Education

university degree (54%)    secondary education (44%)

## Indicators

## Mean value

## Discussion

knowledge of microplastics	2.4	Lower than average
respondents concern on microplastics	3.6	Close to average
interest if food contain microplastics	3.5	
do microplastics present in food could cause a health problem	4.1	Higher than average

➤ *No significant differences are established between the different respondent groups*

## Source of information about microplastics

social media (27 %)

television/radio (21%)

scientific publications (19 %)

# DISCUSSION

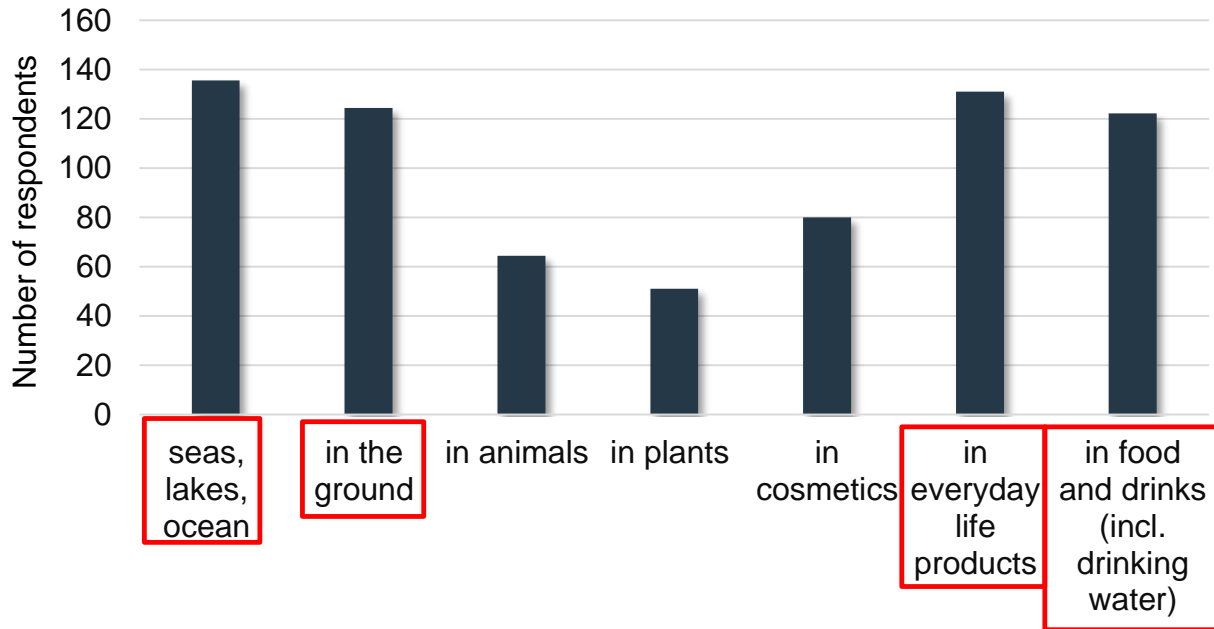


Figure 1. Comparison of respondents' opinion on distribution of microplastics

Main sources of microplastics:

- Young people (18-30 years) point lakes, seas and oceans
- respondents with age 30-45 - everyday products
- Respondents with university degree -ground, food and drinks

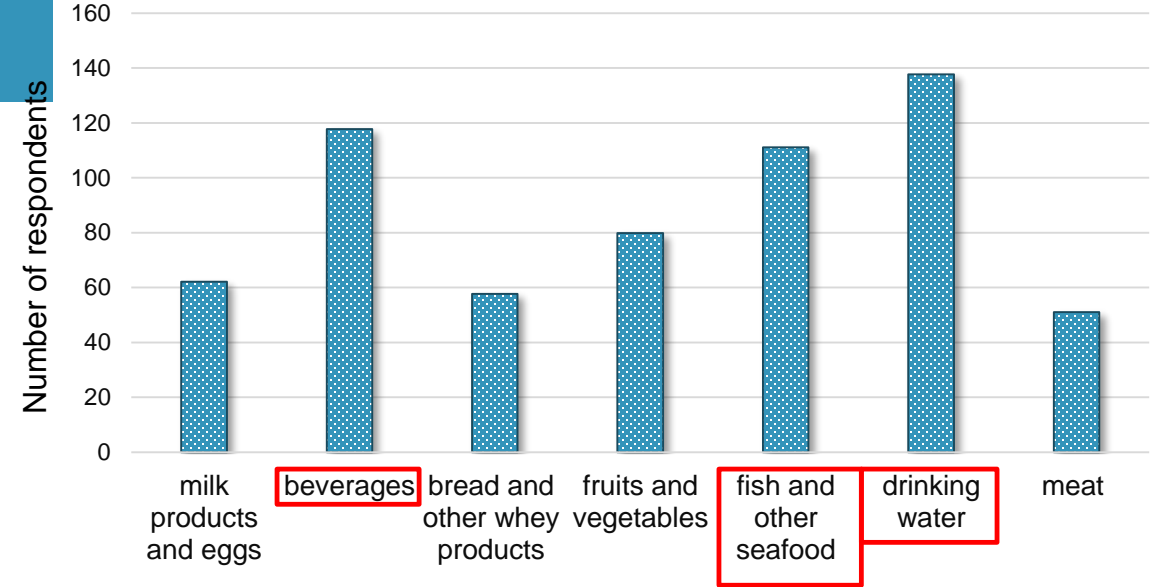


Figure 2. Comparison of respondents' opinion on food products that contain microplastics

Which food products could contain microplastics:

- respondents with higher education -more than four possible food products

**Bulgarian consumers strongly believe that**  
✓ **drinking water contains microplastics and**  
✓ **microplastics in food could be a serious health threat**