

Sand quality as the new criterion of the new Blue Flag recreational water sites in Portugal - It's happening!

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Blue Flag in Portugal added sand quality in 2024



Based on the enumeration per gram of sand of:

1. Intestinal enterococci (Limit: 60* MPN/g) and *E. coli* (Limit: 25 MPN/g) as indicators of fecal contamination
2. Total fungal count (Limits: 420 CFU/g for coastal beaches and 1130 CFU/g for inland and transition)

•This criterion is now mandatory for at least one beach per candidate-municipality (until 2026 when it will expand to all applications)

•Tolerance of 20% for one parameter exceeding the limit with monthly monitoring throughout the bathing season.



The first year

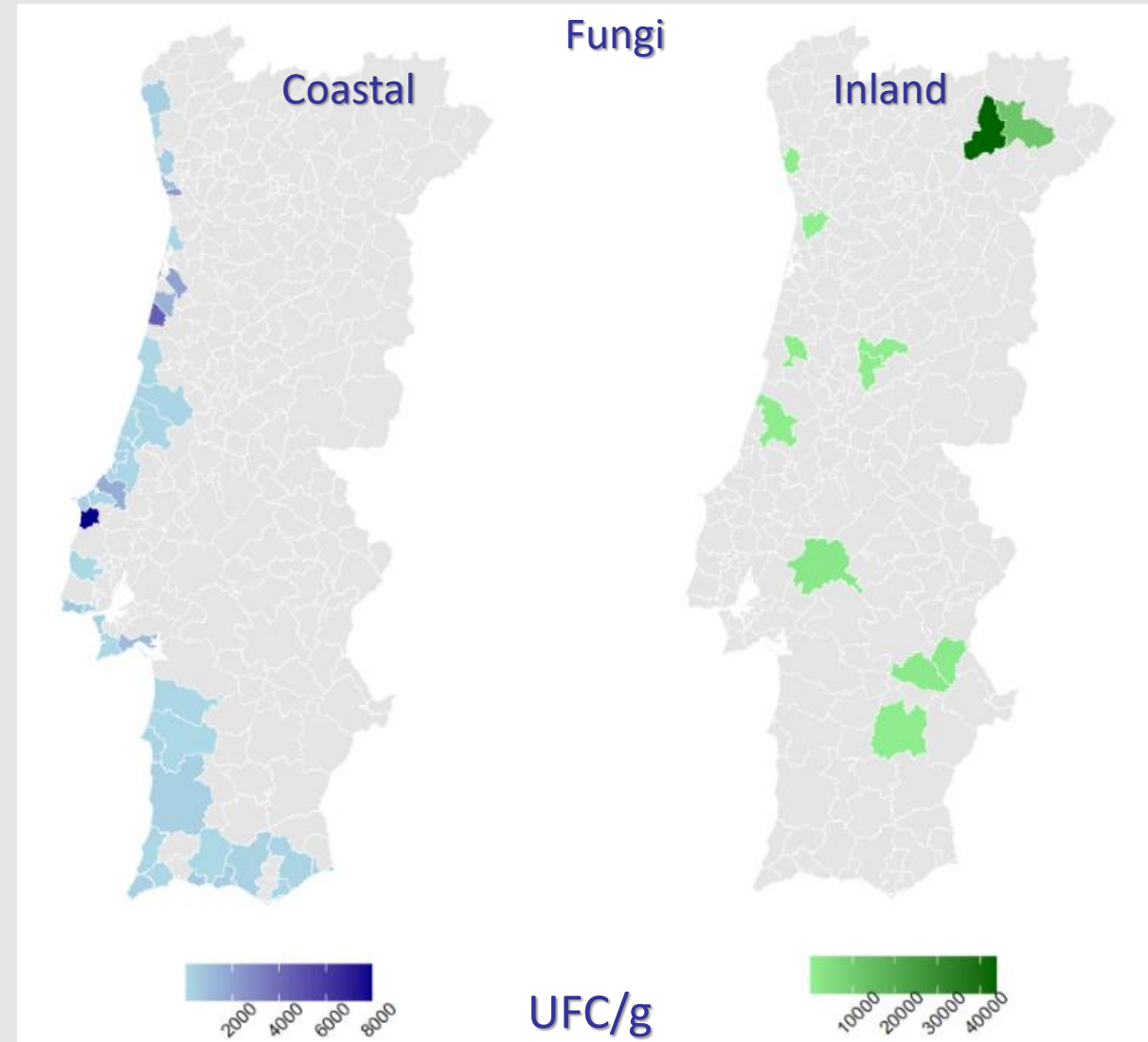
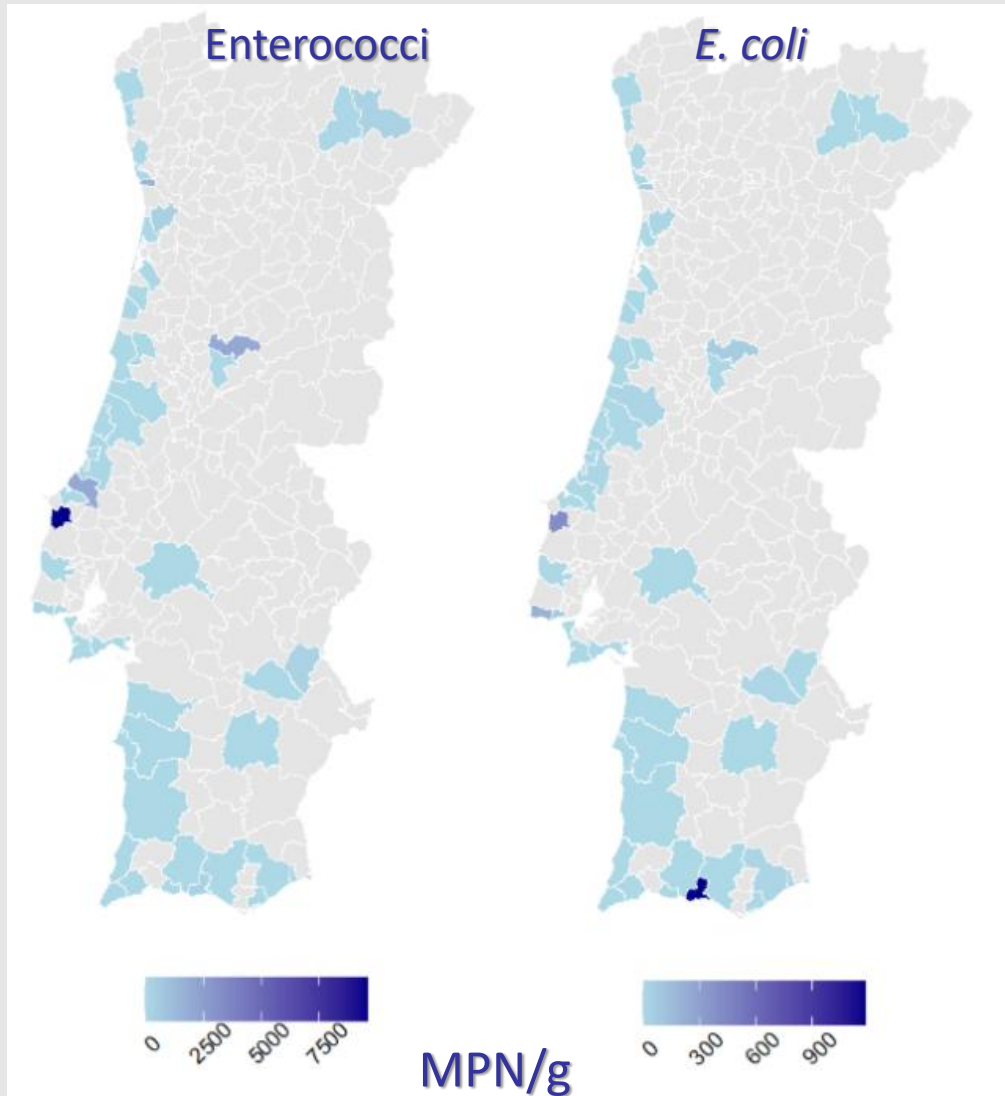
- National number of designated beaches in 2024: **664** (516 continental, 88 Azorean and 60 in Madeira)*
- **398** of which with Blue flag awarded
- Nº of beaches monitored for sand: **122**
- Nº of exceedences in 2024 due to sand: **15 (12,3% - 1st year!)**

region	samples
Açores	15
Alentejo	94
Algarve	148
Centre	79
Madeira	5
North	65
Tejo	154
total	560

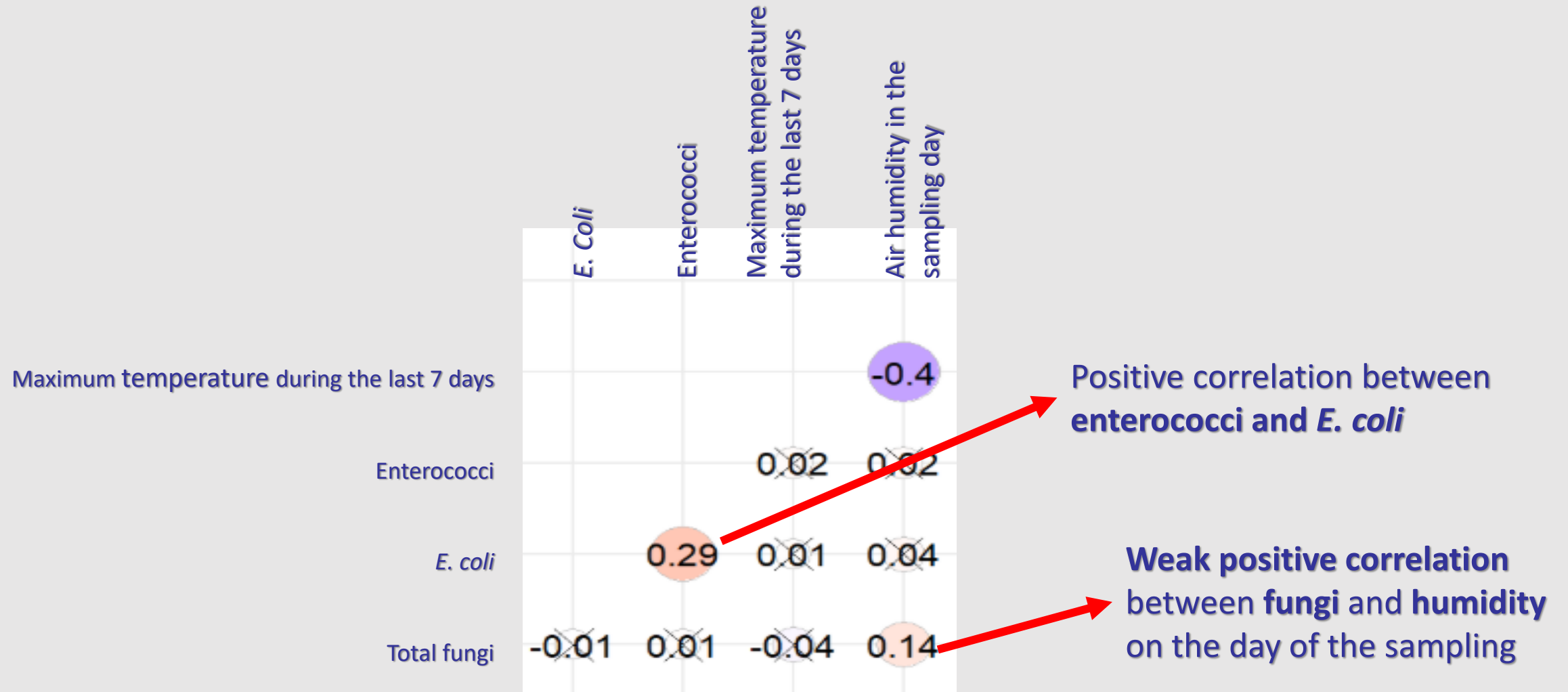


*Portaria n.º 152-A/2024, 30th April

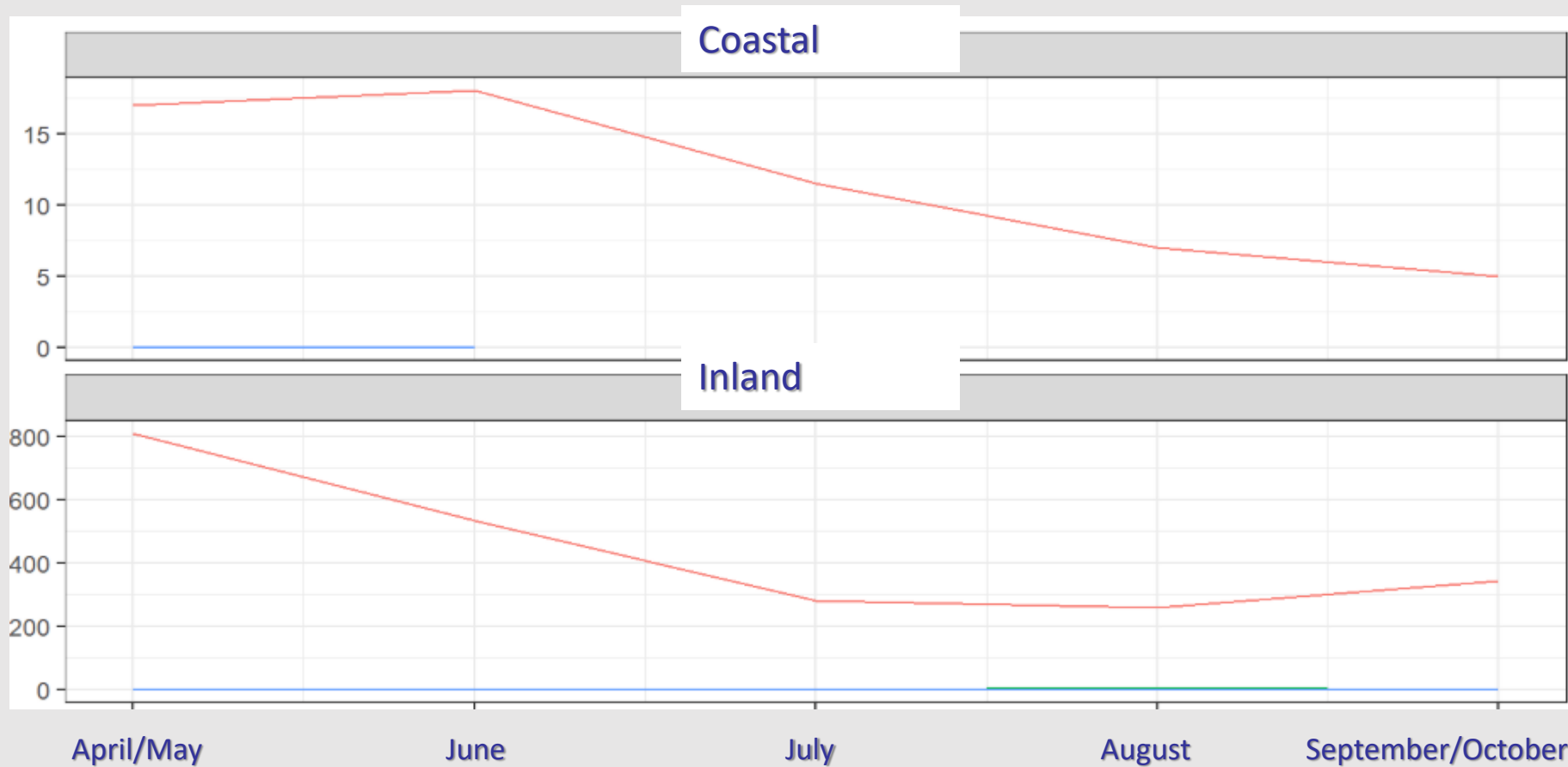
Results - Maximum values registered



Results - Associations



Medians by month and parameter



Precipitation

May-33.5mm

June-42.2 mm

July-10.1mm

August-0.7 mm

September-32.9 mm

- Fungi
- Enterococci
- E. coli*

Factors found to influence the presence of fungi and bacteria in sand

- Beach cleaning in the start of the bating season (lowers counts)
- Human activity-direct deposition, human waste (increases counts)
- Weather events, seasonal variation-Humidity and less sunshine- higher counts
- Pollution events-Water originating from wastewater treatment facilities or other (increases counts)

Thank you!

