Litter ingestion by dead and live sea turtles in the Atlantic and the Mediterranean French waters

Lesson for the implementation of the indicator "Debris ingested by sea turtles"

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Due to their propensity to ingest marine litter and to their extended distribution, sea turtles were proposed since 2013, as a relevant indicator of litter impact caused by ingestion, for the Marine Strategy Framework Directive (MSFD) (European Commission), the Barcelona convention (Mediterranean Sea; UNEP Mediterranean Action Plan), and more recently (2016), for the OSPAR Regional Sea Convention (European South Atlantic; Region IV)

A collaborative work

French rescue centres, stranding networks and research and veterinary laboratories work collaboratively since decades in order to assess the ingestion of anthropogenic debris by the loggerhead Caretta caretta and the leatherback Dermochelys coriacea turtles in the Atlantic, Channel and the Mediterranean metropolitan French facades. Both necropsies of dead individuals and observations from live individuals' faeces in rescue centres are considered.

Atlant



Numerous data collected since 1988 to early 2017 366 data in total: 268 on C. Caretta and 98 on D. coriacea

> French stakeholders are part of a wider international network which aims to gather their data in order to define the criteria and the Good Environmental Status of the Indicator "Litter ingested in sea turtles". The combined results will allow determining possible biological constraints which may be considered for the

(n = 128)

Indicator criteria.

Comparison between

(n = 84)

Indiv. < 40 cm Indivi. > 40 cm

29.2 ± 5.4% (n = 71) 21.05 ± 9.6% (n = 19) Occurrence of litter ingested in the Mediterranean (from 1995) 57.1 ± 6.7% (n = 56)

30.7 ± 9.2% (n = 26)

80 ± 7.4% 26) Litter mass: 0.9 ± 0.3 g (n = 30) Digestive transit duration

(excretion of a micro-ball



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References Galgani et al., 2013. MSFD guidelines; Dell'Amico & Gambaiani, 2013. Report, 53 p.; Darmon et al., 2014. Report, 23 p.

