Priority actions Plan for the conservation of cetacean and sea turtles in the Adriatic Sea: a regional approach to conservation

Network for the Conservation of Cetaceans and Sea Turtles in the Adriatic (NETCET)

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Toward an Italian Plan of Priority Actions for the conservation of Adriatic cetaceans & sea turtles

*Modus operandi*:

- Look at the Adriatic legislative context
- Look at the Adriatic species and populations status
- Look at the existing threats to Adriatic species and populations
- Define potential priority actions & discuss with relevant administration
  - Understand the administrative setup (its strengths & limits)
- Agree on a final set of Priority Actions
International legislation

• European Union **Strategy for the Adriatic and Ionian Region** & its **Action Plan**
• Marine Strategy Framework Directive (**MSFD**)  
• **Habitats Directive** & **Natura 2000**
• General Fisheries Commission for the Mediterranean (**GFCM**) & **ADRIAMED**
• **ACCOBAMS** (Agreement on the Conservation of Cetaceans in the Black Sea Mediterranean Sea and Contiguous Atlantic Area)
• Convention for the Protection of the Mediterranean Sea Against Pollution (**Barcelona Convention**) & **EcAp**
• Convention on Migratory Species (**CMS**)  
• **Bern Convention** on the Conservation of European Wildlife and Natural Habitats
• Convention on Biological Diversity (**CBD**)  
• **Environmental Impact Assessment** (**EIA**) and **Strategic Environmental Assessment** (**SEA**) Directives
International legislation – Habitats Directive

• **Annex II – SAC designation** (cetacean: *Tursiops truncatus*; sea turtles: *Caretta caretta, Chelonia mydas*).

• **Annex IV – Species that require a rigours protection** (cetacean: all species; sea turtles: *Caretta caretta, Chelonia mydas, Dermochelys coriacea*).

• **Article 2**: «The aim of this Directive shall be to contribute towards ensuring biodiversity through the conservation of natural habitats and of wild fauna and flora in the European territory of the Member States to which the Treaty applies. Measures taken pursuant to this Directive shall be designed to maintain or restore, at favourable conservation status, natural habitats and species of wild fauna and flora of Community interest. Measures taken pursuant to this Directive shall take account of economic, social and cultural requirements and regional and local characteristics». 
International legislation – Habitats Directive

• **Article 11**: «Member States shall undertake *surveillance of the conservation status* of the natural habitats and species referred to in Article 2 with particular regard to priority natural habitat types and priority species». 

• **Article 12.4**: «Member States shall establish a system to *monitor the incidental capture* and killing of the animal species listed in Annex IV. In the light of the information gathered, Member States shall take further *research or conservation measures* as required to ensure that incidental capture and killing does not have a *significant negative impact on the species concerned*». 
Species context: cetaceans (1/2)
Species context: cetaceans (2/2)
Species context: sea turtles

Loggerhead & Green turtles

Dermochelys coriacea
Threats: maritime traffic/nautical tourism
Threats: hydrocarbons industry
Threats: military sonars
Threats: accidental captures/fishery interactions
Threats: pollution
Plan of Priority Actions for the Conservation of Cetaceans and Sea turtles in the Adriatic Sea

**Overarching goals**

- **Species’ & populations’ status**

**Main objectives**

- **O1** – Assess status of species and populations
- **O2** – Accidental captures (by-catch) of cetaceans and sea turtles in the Adriatic Sea
- **O3** – Mitigation of impacts of the hydrocarbons industry on species
- **O4** – Mitigation of nautical tourism on species and populations
- **O5** – Mitigation of actions to prevent further macro-plastic pollution by boaters

**Priority actions**

- **O1**
  - **PRO1** - Protocols for data collection and the local and basin level
  - **FOR** - Training of monitoring operators and data quality control
  - **DIV** - Biannual presentation of results (conference)
  - **VAL1** - Species and populations distribution and abundance estimates
  - **BD** – Ad hoc database on post-mortem examinations only
  - **VAL2** - Estimates of species’ demographic parameters

- **O2**
  - **VAL1** - Bycatch estimates, identification of priority fishing metiers & standard protocols
  - **MIT** - Mitigation measures: technological (e.g. TED) & technical tools (e.g. fishing effort reduction or management)
  - **COL** - International collaboration to assess impact of all fisheries at population level
  - **FORM** - Training for post-release mortality reduction (handling techniques)

- **O3**
  - **PRO** - Protocols for assessing & mitigating impacts (codes of conduct)
  - **REG** – Registry of certified observes (with periodical review)

- **O4**
  - **PRO** - Protocols for assessing & mitigating impacts (seasonal codes of conduct)
  - **FORM** – Seminar for Harbour Masters & Tourism personnel
  - **MIT** – Technological improvements to reduce outboard engines acoustic emission

- **O5**
  - **MIT2** – Actions to prevent further macro-plastic pollution by boaters

**Key**

- **O** = objective
- **PRO** = protocol
- **FORM** = training
- **VAL** = assessment
- **BD** = database
- **DIV** = public awareness
- **MIT** = mitigation
- **COL** = cooperation

**Periodic activity**

**1-time activity**
Overarching goals Priority objectives & Priority actions

ASSESSMENT OF SPECIES’ & POPULATIONS’ STATUS

- O1 – Assess the status of species and populations (six priority actions)
- O2 – Accidental captures (by-catch) of cetaceans and sea turtles in the Adriatic Sea (five priority actions)

ASSESSMENT OF HUMAN INDUCED BEHAVIOURAL PERTURBATION ON SPECIES

- O3 – Mitigation of impacts of the hydrocarbons industry on species (two priority actions)
- O4 – Mitigation of nautical tourism on species and populations (four priority actions)
ASSESSMENT OF SPECIES’ & POPULATIONS’ STATUS

O1 – Assess the status of species and populations (six priority actions)

• O1-PRO1 - Protocols for data collection and the local and basin level
  o Ad hoc Adriatic region protocols, agreed at the international level & ratified at the national level

• O1-FOR - Training of monitoring operators and data quality control
  o Directory of trained operators for monitoring and data quality control in Adriatic

• O1-VAL1 - Species and populations distribution and abundance estimates
  o Periodic survey on distribution and abundance at basin level (3-6 years)

• O1-BD – Ad hoc database on post-mortem examinations only
  o Database on post-mortem examinations to detect events of human-induced mortality

• O1-VAL2 - Estimates of species’ demographic parameter
  o Demographic parameters of Adriatic cetaceans and sea turtles populations

• O1-DIV - Biannual presentation of results (conference)
ASSESSMENT OF SPECIES’ & POPULATIONS’ STATUS (1/2)

O2 – Accidental captures (by-catch) of cetaceans and sea turtles in the Adriatic Sea
(five priority actions)

• O2-VAL1 - Bycatch estimates, identification of priority fishing metiers &
  standard protocols
  o Identification of potentially most impacting fishery metiers in the Adriatic
  o Pilot studies on selected metiers to assess the real extent of impacts
• O2-MIT - Mitigation measures: technological (e.g. TED) & technical tools (e.g.
  fishing effort reduction or management)
  o Reduction of the total observed bycatch events
  o Independent observers monitoring programmes (assessment of real bycatch rates)
• O2-COL - International collaboration to assess impact of all fisheries at
  population level
  o Identification of parameters to assess the real impact of bycatch at the population level
ASSESSMENT OF SPECIES’ & POPULATIONS’ STATUS (2/2)

O2 – Accidental captures (by-catch) of cetaceans and sea turtles in the Adriatic Sea

- O2-FORM - Training for post-release mortality reduction (handling techniques)
  - Reduction of post-release mortality (medium-long term mortality)
- O2-VAL2 - Technical-scientific hypotheses on potential management models to address the bycatch issue
  - Definition of management models to address cetacean and sea turtle bycatch issue in the Adriatic Sea
HUMAN-INDUCED BEHAVIOURAL PERTURBATION ON SPECIES

O3 – Mitigation of impacts of the hydrocarbons industry on species
   • O3-PRO - Protocols for assessing & mitigating impacts (codes of conduct)
   • O3-REG – Registry of certified observes (with periodical review)

O4 – Mitigation of nautical tourism on species and populations
   • O4-PRO - Protocols for assessing & mitigating impacts (seasonal codes of conduct)
   • O4-FORM – Seminar for Harbour Masters & Tourism personnel
   • O4-MIT – Technological improvements to reduce outboard engines acoustic emission
   • O4-MIT2 – Actions to prevent further macro-plastic pollution by boaters
Threats: lack of international planning
Threats: lack of international planning
Species prospective
Italian prospective

12 nmi
AL, HR, IT, MN & SLO national prospective:

if applying same criteria with no concrete cooperation
Species prospective
AL, HR, IT, MN & SLO prospective:

if working in synergy
Toward an Italian Plan of Priority Actions for the conservation of Adriatic cetaceans & sea turtles

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• Agree on a final set of Priority Actions
• **START INTERNATIONAL POLITICAL DISCUSSIONS ON AN ADRIATIC PLAN**
Where are we now with the Italian Plan of Actions?

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Many thanks to all NETCET partners & Ministries officers for their feedbacks!