Indicator	
10	Change to significant coastal and marine habitats and species.
Measurement	
10.3	Number of Red List maritime[4] species.

What should the measurement tell us?

Red Lists (RL) provide a signal about species in danger of disappearing in the absence of proper conservation actions. The disappearance or maintenance of a species on a region is an indicator not only of the pressure exerted directly on its populations but also of the general health of its habitat. Therefore, RL help to set priorities for implementing conservation measures and monitoring systems both at species and habitat level. They are also a medium for the promotion of research and help to draw the attention of the public to the gradual loss of biodiversity.

We also want to know whether this loss of and damage to biodiversity is occurring at a higher rate in the maritime zones (zones in relation to the sea)[4] than in the hinterland. Maritime zones, especially those located on the thin strip where land and sea interact, are particularly attractive for tourism and other types of development, which may lead to a greater loss and damage to habitat extensions and therefore to its species. Furthermore, many marine species have been subject to unsustainable fisheries practices either directly or indirectly. If no specific measures are implemented to counteract these impacts, it is expected that the proportion of endangered species will increase in the maritime zones.

It has to be said that this measurement greatly depends on the accuracy of the existing species inventories. If these are incomplete, which applies in most cases and especially for marine species, it is difficult to say to what extent the existing biodiversity is being damaged or lost and at what pace (rates/trends).

Parameters	
(i)	% of RL 'maritime' species assessed by major group as a proportion of the number of 'maritime' species assessed for each year available.
(ii)	% of RL 'maritime' species within each conservation status by major group (last or most recent assessment data).

Coverage	
Spatial	**Temporal**
Maritime specific habitats (coastal lagoons, dunes, rocky coasts, coastal waters and estuaries, continental shelf, sea area, marine waters…) [4].	Periodically since at least 1990. At least every five years.

Data sources

The data needed to compile the measurement are the number of species that are under any of the Red List categories[1] and that are described as 'maritime-specific' or exclusive to

maritime specific habitat[4] (coastal land and marine habitats).
National data on RL species are available for most countries for higher plants and for four animal classes (amphibians, reptiles, birds and mammals). National data on threatened fish species are also available for many countries but are not reported by class and are usually for freshwater only. National data on total numbers of fish species are not as widely available. Few countries have sub-national data. Many countries hold the data but for some, it is easier to obtain them from international sources.

It is important that the reporting entity includes an accurate definition/description of how the criteria were established to define 'maritime-specific' or 'maritime-exclusive' or 'maritime-preferential' or which of these categories have been used to construct the list. In order to produce a credible list that can withstand the first line of constructive criticism from the experts, at least the definitions and criteria must be well established. This is particularly true for assessments that need to be conducted at the local/regional level.

Information on the national threat status and endemism has to be collected from national databases. In the assessment of biological data, errors may be high and it is difficult to set a standard value for precision. In general, limitations of the assessment should be reported.

It is important to bear in mind that the RL at the national level may differ from the RL at a local level, i.e. a species may be considered extinct in Flanders but endangered in Belgium - similarly for the IUCN lists. In other words, the scale is decisive in the outcome.

National RL can be obtained from the agencies responsible for wildlife management and/or implementing the Biodiversity Convention.

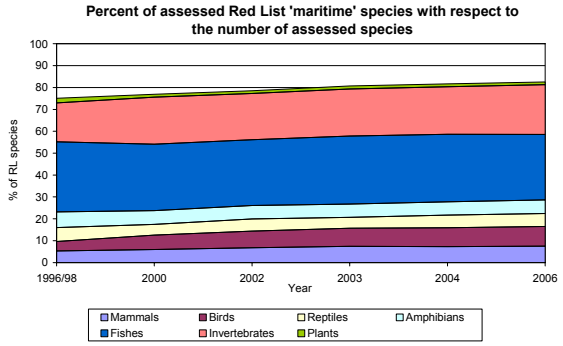
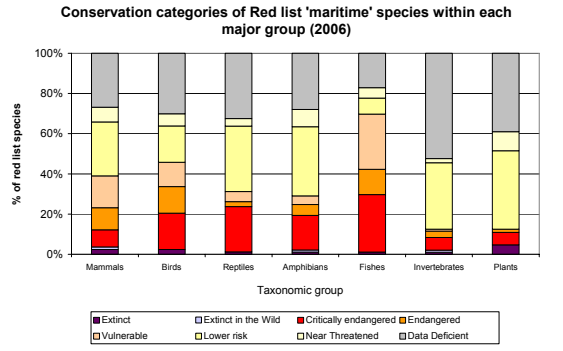
If national data is not available, then the international source is the World Conservation Union (IUCN). Through its Species Survival Commission (SSC), for almost four decades the IUCN been assessing the conservation status of species on a global scale in order to highlight taxa threatened with extinction and promote their conservation. Information is available at the Red List 2000 webpage; a search function provides detailed data on species either for coastal (marine and terrestrial) and non-coastal habitats.

Methodology

	Steps	**Products**
1	For each year available: from your national/regional RL (alternatively from IUCN RL if the national/regional list is not available), collect data on the list of species of each major taxonomic group[2,3] that is maritime-specific (exclusive to maritime-specific habitat) or maritime-preferential [4] and that is under any of the RL categories: extinct, extinct in the wild, critically endangered, endangered, vulnerable, near threatened, least concern and data deficient[1].	List of species under any of the RL categories that are maritime-specific (exclusive to maritime-specific habitat) or maritime-preferential for each year available
2	For each year available add up the number of species obtained in step 1, excluding the	Total number of 'maritime' species assessed for each year available

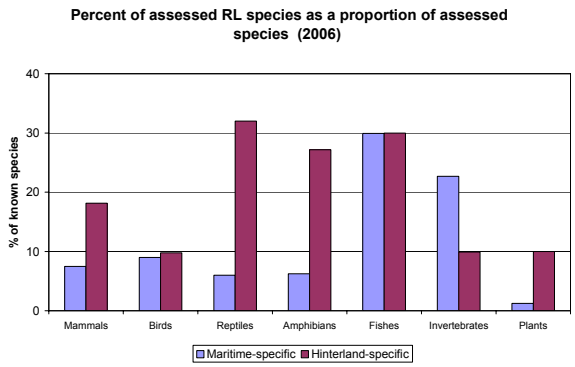
	species that are Data deficient[(1)].	
3	For each year available, add up the number of species under the categories EX, EW, CR, EN, VU and NT, by major taxonomic group[(1)].	Total number of RL 'maritime' species assessed by major taxonomic group and for each year available
4	For each year available, divide the product of step 3 (number of assessed RL 'maritime' species of each major taxonomic group) by the product of step 2 (total number of species assessed) and multiply by 100.	% of assessed RL 'maritime' species by major group as a proportion of the number of species assessed for each year available (Graph 1)
5	Only for the most recent assessment: add up the number of RL 'maritime' species[(1)] from the list obtained in step 1 by major group and by conservation status.	Number of RL 'maritime' species by conservation status within each major taxonomic group.
6	Add up the total number of RL 'maritime' species (product step 5) by major taxonomic group.	Total number of RL 'maritime' species by major taxonomic group.
7	For each major group, divide the product of step 5 (number of RL species in each conservation category) by the product of step 6 (total number of RL 'maritime' species of the major group) and multiply by 100.	% of RL 'maritime' species within each conservation category by major group (most recent assessment) (Graph 2).

Presentation of the data

Graph 1	Bar chart showing % of assessed RL 'maritime' species by major taxonomic groups as a proportion of species assessed.	
Graph 2	100% stacked column for the last year showing the percentage of RL 'maritime' species within each conservation category by major group (most recent assessment).	

Adding value to the data

A very interesting exercise is to compare parameter 'i' (% of assessed RL 'maritime' species by major group as a proportion of the number of species assessed for each year available) to the homologous parameter for the hinterland-specific species.

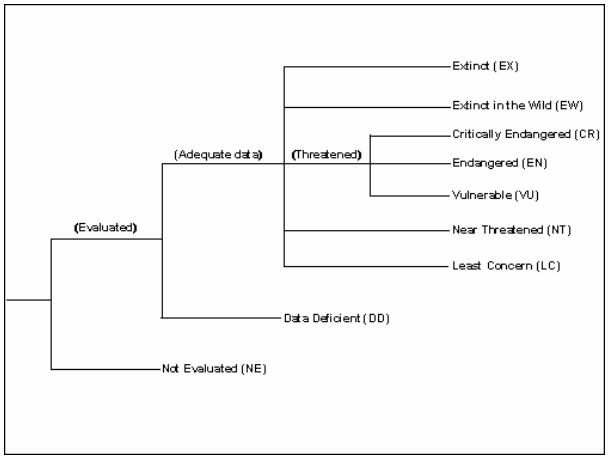


If knowledge and sufficient data are available, it would be also interesting to split the maritime species into marine and terrestrial species.

Aggregation and disaggregation
Annual number of RL species can also be disaggregated by conservation status in each of the major groups.

Notes

(1) the classification of the IUCN RL 2000 includes the following Red List categories: EX - Extinct, EW - Extinct in the Wild, CR - Critically Endangered, EN - Endangered, VU - Vulnerable, NT - Near Threatened, LC – Least concern and DD - Data Deficient. Listing in the categories of Not Evaluated (see figure below) and Data Deficient indicates that no assessment of extinction risk has been made, though for different reasons. Therefore, the categories for extant species assessed are: EX, EW, CR, EN, VU, NT and LC. According to IUCN, Least Concern (LC) species are not considered to be "Red Listed". Therefore, Red List species are: EX, EW, CR, EN, VU, NT and DD.



Red List categories:
EX - Extinct
EW - Extinct in the Wild
CR - Critically Endangered
EN - Endangered
VU - Vulnerable
NT - Near Threatened
DD - Data Deficient
LC – Least concern

See http://www.iucnredlist.org/info/categories_criteria2001 for definitions of each category. These categories may vary from those defined at national RL. If this happens, match with IUCN's categories if possible. If not, then use the categories as they are defined in your data source

(2) The following major groups are proposed. However, according to the groups present in your region, you may consider it better to represent fewer groups and split them into sub-groups:

- Mammals
- Birds
- Reptiles

- Amphibians
- Fishes
- Invertebrates
- Plants

[3]Species are defined as full native species (not introduced species), not sub-species or other infraspecific taxa.

[4] The term “maritime” replaces the term “coastal” used in previous SIF according to the new scope adopted by the Green Paper on a Maritime Policy. “Maritime” refers to what is “bordering on or living or characteristic of those near the sea; i.e., a maritime province; maritime farmers; maritime cultures” as defined by Princeton University in http://wordnet.princeton.edu/, It therefore includes all land and sea that relates to the sea.
The consideration of a species as ‘maritime’ might need some research assisted by experts.