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## **DISCUSSION – Definitions and terminology to be applied**

### **WORKSHOP ON “AN ALIEN SPECIES DATABASE FOR THE CANARY CURRENT LARGE MARINE ECOSYSTEM: DEFINITIONS TO BE APPLIED AND PROGRESS”**

Organized within the project

*Invasive alien species and other ocean stressors: Furthering the scientific knowledge and capacity basis in the Canary Current Large Marine Ecosystem*

**23 June 2022 – On-line**

# Multiple Ocean Stressors - Definitions

*Multiple Ocean Stressors: a scientific summary for policy makers (IOC-UNESCO, 2022):*

<https://unesdoc.unesco.org/ark:/48223/pf0000380891>

## **Driver**

*Environmental properties (e.g. temperature) and ecological processes (e.g. grazing pressure) that **influence** marine life and its productivity and diversity. Drivers can be natural or anthropogenic forces that cause beneficial or detrimental effects.*

## **Stressor**

*Environmental properties or ecological processes, which at a certain threshold (e.g. excess nutrient supply or over-harvesting) **results in detrimental effects to marine life**. Stressors, individually or collectively, are directly responsible for a range of significant harmful changes to the biological components, patterns, and relationships in natural systems.*

# Invasive alien species: Definitions

- **Glossary of terms available in the Convention on Biological Diversity(CBD)'s website:**  
<https://www.cbd.int/invasive/terms.shtml>  
Focus is mainly on definitions that have been agreed at the international level, and on terms that are most directly relevant to the CBD.
- **Definitions applied by the European Commission:**  
<https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1417443504720&uri=CELEX:32014R1143>  
Spanish, English, French and Portuguese versions available at the same link.
- **Darwin Core terms:** <https://dwc.tdwg.org/terms>

All CCLME countries have ratified the Convention on Biological Diversity  
<https://www.cbd.int/information/parties.shtml>

## Definitions agreed at the international level: Sources

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- CBD** Decision VI/23\* of the Conference of the Parties to the CBD, Annex, footnote to the Introduction.
- IPPC** International Plant Protection Convention. International Standard for Phytosanitary Measure #5 (Glossary of Phytosanitary Terms), 2006
- IUCN** Guidelines for the Prevention of Biodiversity Loss Caused by Alien Invasive Species (2000). Approved by the IUCN Council, Feb 2000.
- ICES** International Council for the Exploration of the Sea. Code of Practice on the Introduction and Transfer of Marine Organisms (2005)
- UNEP-WCMC** UNEP World Conservation Monitoring Centre – Glossary of Biodiversity Terms (<http://www.unep-wcmc.org/reception/glossary>)
- Bern Convention** Recommendations No. 57 and 99 of the Standing Committee of the Convention on the Conservation of European Wildlife and Natural Habitats
- Regulation (EU) No 1143/2014 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 22 October 2014 on the prevention and management of the introduction and spread of invasive alien species**

# Terminology: Alien species

## Alien vs exotic vs foreign vs introduced vs non-indigenous vs non-native species

	Alien sp.	Exotic sp.	Foreign sp.	Introduced sp.	Non-indigenous sp.	Non-native sp.
CBD	X					
IUCN	X	*	*		*	*
Regulation (EU) No 1143/201	X			* (using the term in the definition)		* (using the term in the text)
UNEP-WCMC	X	X		*		
ICES		*		X	*	
Bern Convention						*

# Definitions: ALIEN/INTRODUCED/EXOTIC SPECIES

CBD	IUCN	Regulation (EU) No 1143/201	UNEP-WCMC	ICES
<p><b>ALIEN SPECIES</b> A species, subspecies or lower taxon, <b>introduced outside its natural past or present distribution</b>; includes any part, gametes, seeds, eggs, or propagules of such species that <b>might survive and subsequently reproduce</b></p>	<p><b>ALIEN SPECIES (non-native, non-indigenous, foreign, exotic)</b> A species, subspecies, or lower taxon occurring <b>outside of its natural range (past or present) and dispersal potential (i.e. outside the range it occupies naturally or could not occupy without direct or indirect introduction</b> or care by humans) and includes any part, gametes or propagule of such species that <b>might survive and subsequently reproduce</b></p>	<p><b>ALIEN SPECIES</b> Any live specimen of a species, subspecies or lower taxon of animals, plants, fungi or micro-organisms <b>introduced outside its natural range</b>; it includes any part, gametes, seeds, eggs or propagules of such species, as well as any hybrids, varieties or breeds that <b>might survive and subsequently reproduce</b></p>	<p><b>ALIEN SPECIES</b> A species occurring in an area <b>outside of its historically known natural range</b> as a result of intentional or accidental <b>dispersal by human activities</b> (also known as an exotic or introduced species)</p>	<p><b>INTRODUCED (non-indigenous species, exotic species)</b> Any species transported intentionally or accidentally <b>by a human-mediated vector</b> into aquatic habitats <b>outside its native range</b>. Note: Secondary introductions can be transported by human-mediated or natural vectors.</p>

# Definitions: ALIEN/INTRODUCED/EXOTIC SPECIES

CBD	IUCN	Regulation (EU) No 1143/201	UNEP-WCMC	ICES
	<p><b>EXOTIC SPECIES</b> (non-native, non-indigenous, foreign, exotic) An organism that exists in the free state in an area but is not native to that area. Also refers to animals from outside the country in which they are held in captive or free-ranging populations.</p>			

# Terminology: Native species

## native vs indigenous

	Native sp.	Indigenous sp.
CBD		
IUCN	X	*
UNEP-WCMC	X	
ICES	*	X
Bern Convention	X	
Regulation (EU) No 1143/201	*	



# Definitions: NATIVE/INDIGENOUS SPECIES

CBD	IUCN	Regulation (EU) No 1143/201	UNEP-WCMC	ICES	Bern Convention
	<p><b>NATIVE SPECIES (indigenous)</b> means a species, subspecies, or lower taxon, occurring within its <b>natural range</b> (past or present) and <b>dispersal potential</b> (i.e. within the range it occupies naturally or could occupy without direct or indirect introduction or care by humans.)</p>		<p><b>NATIVE SPECIES</b> Plants, animals, fungi, and microorganisms that occur <b>naturally</b> in a given area or region</p>	<p><b>INDIGENOUS SPECIES (native)</b> A species or lower taxon living within its <b>natural range</b> (past or present) including the area which it can reach and occupy using its <b>natural dispersal systems</b> (modified after CBD, GISP)</p>	<p><b>NATIVE SPECIES</b> A species that has been observed in the form of a <b>naturally</b> occurring and self-sustaining population in historical times; "species" in the sense of this Recommendation refers both to species and to lower taxonomic categories, subspecies, varieties, etc. (thus, for instance, the release of a different non-native subspecies into a given territory should also be considered as an introduction)"</p>

# Definitions: INTRODUCTION

CBD	IUCN	Regulation (EU) No 1143/201	Bern Convention	IPCC
<p>The movement by <b>human agency</b>, indirect or direct, of an alien species <b>outside of its natural range</b> (past or present). This movement can be either within a country or between countries or areas beyond national jurisdiction</p>	<p>The movement, by <b>human agency</b>, of a species, subspecies, or lower taxon (including any part, gametes or propagule that might survive and subsequently reproduce) <b>outside its natural range</b> (past or present). This movement can be either within a country or between countries.</p>	<p>The movement, as a consequence of <b>human intervention</b>, of a species <b>outside its natural range</b></p>	<p>Deliberate or accidental <b>release</b>, into the environment of a given territory, of <b>an organism belonging to a non-native taxa</b> (species or lower taxa that has not been observed as a naturally occurring and self-sustaining population in this territory in historical times)"</p>	<p>The <b>entry</b> of a pest <b>resulting in its establishment</b></p>

# Definitions: INVASIVE ALIEN SPECIES/ALIEN INVASIVE SPECIES

CBD	IUCN	Regulation (EU) No 1143/201
<p><b>INVASIVE ALIEN SPECIES</b> "An alien species whose introduction and/or spread <b>threaten</b> biological diversity (For the purposes of the present guiding principles, the term ""invasive alien species"" shall be deemed the same as ""alien invasive species"" in decision V/8 of the Conference of the Parties to the Convention on Biological Diversity)."</p>	<p><b>ALIEN INVASIVE SPECIES</b> An alien species which becomes <b>established</b> in natural or semi-natural ecosystems or habitat, is an agent of change, and <b>threatens</b> native biological diversity</p>	<p><b>INVASIVE ALIEN SPECIES</b> An alien species whose introduction or spread has been found to <b>threaten or adversely impact</b> upon biodiversity and related ecosystem services</p>

NOTE: all in line with the definition provided for “**stressor**” (IOC-UNESCO, 2022), as it results in **detrimental effects to marine life**.

# Definitions: Pathway vs Vector

CBD	Regulation (EU) No 1143/201	Darwin Core terms	ICES
<p><b>PATHWAY</b> Any means that allows the entry or spread of a pest</p>	<p><b>PATHWAY</b> Routes and mechanisms of the introduction and spread of invasive alien species</p>	<p><b>PATHWAY</b> The process by which an Organism came to be in a given place at a given time.</p>	<p><b>VECTOR</b> Any living or non-living carrier that transports living organisms intentionally or unintentionally.</p>



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