



# Safe and Thriving Whales and Dolphins in the European Union: A How-To Guide

The European Union's Commitment to Ensuring the Well-Being of all Sentient Animals



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**CETACEANS** (whales, dolphins and porpoises) are sentient beings. In 1997, the concept of animal sentience was penned into the basic law of the European Union through the Treaty of Amsterdam.<sup>1</sup> In 2009, the Lisbon Treaty<sup>2</sup> came into force; it amended the 'Treaty on the Functioning of the European Union'<sup>3</sup> and introduced the recognition that animals are sentient beings. However, words alone, despite the noblest of intentions, cannot ensure that cetaceans held in captivity can lead lives appropriate for sentient beings. Therefore, the EU should embark upon a plan to phase out dolphinariums in the EU, through ending the breeding of, and trade in, cetaceans. The present EU population of captive cetaceans should be the 'last generation'.

### **Are cetaceans safe and thriving in EU zoos and dolphinariums?**

One of the concerns about keeping cetaceans in dolphinariums is the wholly unnatural conditions provided to them. Species-appropriate behaviour is, for the most part, impossible in these conditions, resulting in poor welfare.<sup>4</sup>

A broadly accepted scientific definition of animal welfare, which is also the basis of species- and individual-specific animal husbandry, is one in which both the physical and psychological health of animals is optimised. In short, the animals' biological needs are met and they can display natural behaviour.<sup>5</sup> However, various studies show that the biological needs of captive cetaceans are massively compromised due to:

- Restricted space;<sup>6</sup>
- Limited social environment;<sup>7</sup>
- Reduced environmental quality and complexity;<sup>8</sup> and
- Behavioural restrictions.<sup>9</sup>

In the European Union, there is one over-arching law that governs the keeping of wild animals in zoos, aquaria and dolphinarium—Council Directive 1999/22/EC,<sup>10</sup> also known as the Zoos Directive.<sup>11</sup> This directive aims to strengthen the role of zoos in biodiversity conservation. It calls on Member States (i.e., countries that are part of the EU) to adopt measures for the licensing and inspection of zoos, and to include, *inter alia*, appropriate accommodation for the animals.

The Zoos Directive's Article 3 stipulates that zoos implement the following conservation measure: "... *accommodating their animals under conditions which aim to satisfy the biological and conservation requirements of the individual species ...*".

Some dolphinarium are members of accreditation bodies like the European Association of Zoos and Aquaria (EAZA), European Association for Aquatic Mammals (EAAM), and others. Although these associations state their aim is to provide leadership and support for modern zoos and aquaria, they permit their members to exhibit cetaceans, including for commercial use in shows and interactive experiences. As outlined above, these aspects do not meet the welfare needs of the animals. As such, policymakers cannot rely on the standards set by such accreditation bodies.

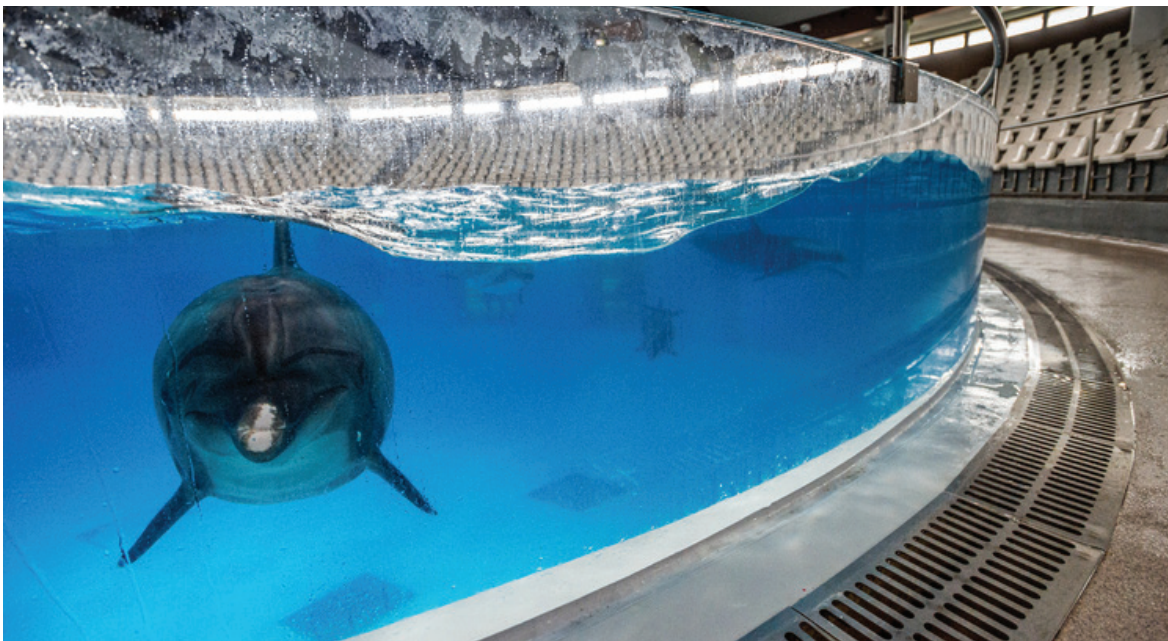
Cetaceans are typically ignored, overlooked or their needs underestimated when authorities develop zoo standards, so the conditions in which they are held are outdated and inadequate throughout Europe. Furthermore, no EU zoo standards require science-based or species-specific conditions that meet even the basic biological needs of cetaceans.

This inattention by the Management Authorities and the facilities themselves is not acceptable. Dolphinarium should be phased out in Europe, as no display facility can ever meet the biological needs of cetaceans.

### **Do dolphinarium aid education and science?**

According to the *EU Zoo Inquiry*,<sup>12</sup> the quality of education in dolphinarium is poor, despite education being a frequent industry justification for displaying cetaceans.

Traditional zoo dogma states that the display of live animals is required to educate people about a species (and therefore to care about the species and its habitat). Evidence does not support this view. Many people, especially children, are fascinated by (as one example) dinosaurs, yet have never seen a living one. Clearly, books, animatronics (robots), DVDs, documentaries, IMAX films, interactive and traditional museum-type displays, holograms and virtual reality simulations could and should replace cetaceans in captivity and the shows they perform.<sup>13</sup>



Evaluation of most performances' scripts and settings, as well as observation of the audiences' reactions, reveal that a captive marine mammal performance is typically not an educational vehicle but rather an entertainment spectacle, in which miseducation (in the form of inaccurate representation of such things as normal behaviour, life span, appearance and social structure) may be more common than accuracy.<sup>14</sup>

In addition, the scientific value of captive dolphin research is limited. For instance, data are collected in artificial environments, in unnatural social groups and from animals who cannot display many natural behaviours and may be treated with drugs that can affect their physiology and behaviour.<sup>15</sup> Alongside technical advancements, numerous field methods have been developed that allow researchers to conduct in-depth studies of cetacean behaviour and physiology in free-ranging animals, making captive cetacean studies even less essential to our understanding of cetacean biology, ecology or conservation needs.<sup>16</sup> And even if some valuable scientific questions can only be answered with captive studies, for-profit and entertainment dolphinariums are not required to conduct that work (dedicated research facilities do exist). Indeed, entertainment dolphinariums present obstacles to conducting research.<sup>17</sup> The contribution of dolphinariums to scientific research that benefits cetacean species in the wild is ultimately minimal.

### **Do dolphinariums contribute significantly to conservation?**

As of March 2023, a total of 30 dolphinariums in 14 EU countries hold 299 captive cetaceans (Table 1). The majority of these are bottlenose dolphins (*Tursiops truncatus truncatus* and *T. t. ponticus*), but the captive population also consists of orcas (*Orcinus orca*), belugas (*Delphinapterus leucas*), and harbour porpoises (*Phocoena phocoena*).

Sixty-six of the 299 cetaceans in EU facilities were wild-caught, mostly bottlenose dolphins.<sup>18</sup> With the exception of the Black Sea bottlenose dolphin (*T. t. ponticus*), which is classified as endangered by the International Union for Conservation of Nature (IUCN), all other wild-caught cetacean species in captivity in the EU are not considered to be endangered.<sup>19</sup> The conservation of these species does not in any way rely on their maintenance in *ex situ* facilities.<sup>20</sup>

While some dolphinariums contribute funds to *in situ* conservation projects, the amount is typically an insignificant percentage of their annual revenue.<sup>21</sup> Certainly, given how many non-governmental organizations (NGOs) contribute funding to *in situ* conservation projects without displaying any live wildlife at all, dolphinariums are not critical to this need. In some cases, their contribution appears to be contingent on receiving animals for display from conservation projects in return<sup>22</sup> (see next section).

### **Could *ex situ* breeding help conserve endangered cetaceans?**

A 2018 workshop entitled *Ex situ Options for Cetacean Conservation* (ESOCC) led to the creation of a subgroup of the IUCN Species Survival Commission Cetacean Specialist Group, called the *Integrated Conservation Planning for Cetaceans* (ICPC). The ICPC has proposed to integrate *ex situ* measures with *in situ* efforts in small cetacean conservation plans. These measures may include, in certain circumstances, holding individual animals in semi-natural reserves and/or artificial enclosures (e.g., concrete tanks) and breeding them in captivity.<sup>23</sup>

This effort by dolphinariums to take a leadership role in *ex situ* conservation efforts appears to be a marketing ploy to maintain their relevance in a rapidly changing societal landscape. There is concern that policymakers may favour *ex situ* measures as the most expedient and least politically costly option for recovering endangered small cetaceans. *In situ* options—mitigating and/or removing threats in their natural habitat, as well as stranding responses—are ultimately the only effective way to recover these species.<sup>24</sup>

### **Do dolphinariums contribute to local economies?**

The economic role of cetaceans kept in captivity and used in shows, in encounters with swimmers and in similar activities in the EU is negligible, particularly in comparison with that of animals used in the agricultural sector. Most of the 30 currently active EU facilities displaying cetaceans do not house these species exclusively or rely on them solely for income. They provide multiple other products (e.g., amusement park rides, other species displays). There are no data available on jobs



solely dedicated to handling and caring for captive cetaceans in the EU, but these are unlikely to exceed several hundred individuals. However, it is documented that some of these jobs are dangerous; EU-based staff have been seriously injured and one has died as a result of interactions with captive cetaceans.<sup>25</sup> Additionally, some EU facilities continue to provide opportunities for public interaction with cetaceans that can result in injuries to people and animals.<sup>26, 27</sup>

## National level

In delegating captive cetacean issues to a national (Member State) level, the EU ignores the fact that zoos are predominantly 'commercial' enterprises.<sup>28</sup> Holding cetaceans in captivity at a facility designated as a 'zoo' under the Zoos Directive does not equate with providing them express or implied freedoms as sentient beings.

Currently, cetaceans are on display in 14 EU countries, with almost 75% of animals being based in just five Member States (Table 1). Furthermore, it is often impossible for NGOs to access up-to-date information on animal health or disposition, or even if individuals are alive or dead. Such a lack of transparency negatively affects the ability of these 'watchdog' organisations to advocate for improved welfare. This in turn may mean that national level governments are also hampered as they strive to ensure cetacean protection and welfare standards are met and improved.<sup>29</sup> Furthermore, Member States have been identified as specifically excluding cetaceans from forthcoming animal welfare legislation.<sup>30</sup>

Conversely, several Member States have introduced or passed measures to phase out or prohibit cetacean captivity. Clearly, there is momentum building for a dolphinarium-free Europe.

## The Future

The following should be codified in EU legislation:

[1] Prohibit the

- (a) breeding of captive cetaceans;
- (b) keeping cetaceans in captivity for private or entertainment purposes (with the exception of those outlined in [2]);
- (c) import and export of cetaceans for private or entertainment purposes;
- (d) export of cetacean gametes, stem cells, embryos or any other part of a cetacean that could be used for breeding;
- (e) import of wild-caught cetaceans into the European Union for any purposes; and
- (f) internal EU trade of cetaceans for primarily commercial purposes.<sup>31</sup>

[2] Consider, on a case-by-case basis, if a facility currently holding cetaceans captive should be permitted to maintain its collection for entertainment purposes. Approval should only be granted if it is in the best interests of the individuals to remain where they are, e.g., if there are no options for sanctuary. The facility must adhere to the prohibitions as outlined in [1] and comply with [3] and [4], whilst still striving to phase out the keeping of cetaceans.

[3] Require facilities that maintain captive cetaceans for entertainment purposes under [2] to provide science-based and, as far as is practicable, animal-based (versus resource or performance-based) living conditions that support the welfare and well-being of the animals.

[4] Allow the following exceptions to [1]: the

- (a) temporary holding of individual cetaceans injured or ill and in need of ongoing veterinary care, only for the required period determined by scientists and veterinarians, according to proper veterinary criteria; or
- (b) transfer of an individual where it would be in the best interest of the individual as determined by scientists and veterinarians, according to proper veterinary criteria.

[5] Future-proof the issue of cetacean welfare for animals retired from dolphinariums and those who cannot be released after stranding/rehabilitation by providing a regulation for authentic seaside sanctuaries.



Authentic seaside sanctuaries are refuges where captive cetaceans may live in a setting as close as possible to natural habitat, while remaining protected, provided for and attended by caregivers and veterinarians. These facilities would typically be fjords, bays or coves with a net closing off the entrance. The well-being and autonomy of individual animals is the priority at an authentic sanctuary. Such sanctuaries are in essence retirement facilities for former entertainment cetaceans. Authentic sanctuaries do not breed their residents nor use them for commercial purposes.

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**This Policy Brief has been prepared by the [Dolphinaria-Free Europe \(DFE\) coalition](#).**

DFE's members include eminent marine mammal scientists, animal welfare experts, conservationists, NGOs, individual members and advisors with members in nine EU Member States and from around the globe. We seek to phase out and ultimately eliminate the keeping of cetaceans (whales, dolphins and porpoises) in captivity in the European Union and wider Europe, whilst striving towards greater protection for those still held captive, through investigation, advocacy and education.

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**SUGGESTED CITATION**

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**PHOTO CREDITS**

captive orca at Dolfinarium Harderwijk: Ingrid Visser; wild orca: Mark Malleson; captive dolphin at Lithuanian Maritime Museum: We Animals Media; captive beluga at L'Océanogràfic: Ingrid Visser

**Table 1.** Details of country, facility, species and number of cetaceans held in the EU. The most current numbers available in [Ceta-Base](#), an independent online database documenting captive cetaceans and the most reliable source for this information, are from June 2021

COUNTRY	FACILITY	BELUGA WHALE	BOTTLENOSE SP.	ORCA	HARBOUR PORPOISE
<b>Belgium</b>	Boudejwin Seapark		8		
<b>Bulgaria</b>	Dolphinarium Varna		5		
<b>Denmark</b>	Fjord&Bælt Center				3
<b>France</b>	Marineland Antibes		12	4	
	Planète Sauvage		9		
<b>Germany</b>	Tiergarten der Stadt Nürnberg		6		
	Zoo Duisburg		9		
<b>Greece</b>	Attica Zoo		9		
<b>Italy</b>	Acquario di Genova		6		
	Oltremare Park		7		
	Zoomarine		11		
<b>Lithuania</b>	Lithuanian Maritime Museum		16		
<b>Malta</b>	Mediterraneo Marine Park		5		
<b>Netherlands</b>	Dolfinarium Harderwijk		26		5
	Sea Mammal Research Company				1
<b>Portugal</b>	Jardim Zoológico de Lisboa		8		
	Zoomarine Algarve		27		
<b>Romania</b>	Delfinariu Constanța		2		
<b>Spain</b>	Aqualand Costa Adeje		11		
	Aquópolis Costa Dorada		8		
	L'Oceanogràfic	2	18		
	Loro Parque		9	4	
	Marineland Catalunya		5		
	Marineland Mallorca		11		
	Mundomar Benidorm		8		
	Palmitos Park		6		
	Parque Rancho Texas Lanzarote Park		8		
	Selwo Marina		9		
<b>Sweden</b>	Zoo Aquarium de Madrid		8		
	Kolmården Wildlife Park		12		
EU Countries with Dolphinarria: 14	Facilities: 30	2	280	8	9

## Endnotes

1. Treaty of Amsterdam amending the Treaty on European Union, the Treaties establishing the European Communities and certain related acts ([97/C 340/01](#)).
2. Treaty of Lisbon amending the Treaty on European Union and the Treaty establishing the European Community, signed at Lisbon, 13 December 2007 ([2007/C 306/01](#)).
3. Consolidated version of the Treaty on the Functioning of the European Union ([C 326/49](#)).
4. Goldblatt, A. (1993). Behavioural needs of captive marine mammals. *Aquatic Mammals* 19(3):149–157.
5. Appleby, M. (1999). *What Should We Do About Animal Welfare?* Wiley-Blackwell, Oxford; Fraser, D., Weary, D.M., Pajor, E.A. & Milligan, B.N. (1997). A scientific conception of animal welfare that reflects ethical concerns. *Animal Welfare* 6: 187–205; Duncan, I.J.H. & Fraser, D. (1997). Understanding animal welfare. In: *Animal Welfare*, M.A. Appleby, B.O. Hughes (Eds.), CABI Publishing, Wallingford, UK, pp 19–31.
6. Marino, L., Rose, N.A., Visser, I.N., Rally, H.D., Ferdowsian, H.R. & Slootsky, V. (2019). The harmful effects of captivity and chronic stress on the well-being of orcas (*Orcinus orca*). *Journal of Veterinary Behavior* 35: 69–82, [DOI: 10.1016/j.jveb.2019.05.005](#); Rose, N.A., Snusz, G.H., Brown, D.M. & Parsons, E.C.M. (2017). Improving captive marine mammal welfare in the United States: Science-based recommendations for improved regulatory requirements for captive marine mammal care. *Journal of International Wildlife Law & Policy* 20: 38–72, [DOI: 10.1080/13880292.2017.1309858](#).
7. See Marino *et al.* (2019) in endnote 6; Waples, K.A. & Gales, N.J. (2002). Evaluating and minimizing social stress in the care of captive bottlenose dolphins (*Tursiops aduncus*). *Zoo Biology* 21: 5–26.
8. Couquiaud, L. (2005). A survey of the environments of cetaceans in human care. *Aquatic Mammals* 31(3): 279–280.
9. See Marino *et al.* (2019) and Rose *et al.* (2017) in endnote 6.
10. [Council Directive 1999/22/EC](#) of 29 March 1999, relating to the keeping of wild animals in zoos.
11. [Zoos Directive](#), European Commission.
12. Williamson, C., Bailey, R. & Stansfield, L. (2014). [EU Zoo Inquiry: Dolphinaria](#). Whale and Dolphin Conservation, Born Free Foundation, Dolphinaria-Free Europe, and Endcap, 37 pp.
13. Rose, N.A. & Parsons, E.C.M. (2019). [The Case Against Marine Mammals in Captivity. 5th edition](#). Animal Welfare Institute and World Animal Protection, Washington, DC, USA, 156 pp.
14. Visser, I.N., Barefoot, N.N. & Spiegl, M.V. (2021). [Chapter 5. Wildlife conservation and public relations: The greenwashing of marine mammal captivity](#). In: Carvelho Mocellin, V., Editor, *Contributions to the Global Management and Conservation of Marine Mammals*. Editora Artemis, Curitiba, Brazil, pp 62–101; Williams, V. (2001). [Captive orcas. "Dying to Entertain You": The Full Story](#). Whale and Dolphin Conservation Society (WDCS), Chippenham, Wiltshire, United Kingdom, 100 pp.
15. Mayer, S. (1998). [A Review of the Scientific Justifications for Maintaining Cetaceans in Captivity](#). A report for the Whale and Dolphin Conservation Society, Bath, United Kingdom, 46 pp.
16. Marino, L. & Frohoff, T. (2011). Towards a new paradigm of non-captive research on cetacean cognition. *PLoS ONE* 6(9): e24121, [DOI: 10.1371/journal.pone.0024121](#).
17. At the 2019 [World Marine Mammal Conference](#) (WMMC) in Barcelona, Spain, of approximately 1,400 scientific abstracts, only about 1% were of studies conducted on cetaceans in captive settings; see also Hill, H. & Lackups, M. (2010). Journal publication trends regarding cetaceans found in both wild and captive environments: What do we study and where do we publish? *International Journal of Comparative Psychology* 23: 414–534, which noted that entertainment dolphinaria present significant obstacles to conducting research, such as training and performance schedules; Hill, H.M., Guarino, S., Dietrich, S. & St Leger, J. (2016). An inventory of peer-reviewed articles on killer whales (*Orcinus orca*) with a comparison to bottlenose dolphins (*Tursiops truncatus*). *Animal Behavior and Cognition* 3: 135–149.
18. [Ceta-Base](#). Of the 280 bottlenose dolphins in EU dolphinaria, 19 are Black Sea bottlenose dolphins, including four wild-caught.
19. [Status of the World's Cetaceans](#), IUCN—SSC Cetacean Specialist Group.
20. See Visser *et al.* (2021) in endnote 14.
21. See Visser *et al.* (2021) in endnote 14.
22. Dolphinaria-Free Europe (2021). [The Seaworthiness of Noah's Ark: Ex situ Conservation Cannot Save Endangered Cetaceans: DFE response to ESOC and ICPC](#), 10 pp.
23. See Dolphinaria-Free Europe (2021) in endnote 22. When presented written questions from Members of the European Parliament (MEPs) concerning the conservation benefits of breeding Annex A specimens with Annex B specimens of *Orcinus orca* pursuant to the Zoos Directive (1999/22/EC) and Council Regulation (EC) 338/97 ([Breeding Annex A specimens for conservation benefits pursuant to the Zoos Directive and Council Regulation \(EC\) 338/97](#)), the European Commission acknowledged that, through its oversight of the Committee on Trade in Wild Fauna and Flora, the Group of Experts of the Competent CITES Management Authorities, and the Scientific Review Group (SRG), the Commission does not include the assessment of conservation benefits from captive-breeding programmes of listed species ([Answer given by Mr Vella on behalf of the European Commission](#)).
24. In limited cases, particularly river dolphins, semi-natural reserves may work temporarily to preserve small populations (independent of any human intervention) while habitat is restored. However, most species' habitat is not conducive to establishing large enough reserves. See also Curry, B.E., Ralls, K. & Brownell Jr., R.L. (2013). Prospects for captive breeding of poorly known small cetacean species. *Endangered Species Research* 19: 223–243.
25. See Marino *et al.* (2019) in endnote 6
26. Injuries are acknowledged by the facilities through documents such as liability release forms. One such document (from SeaWorld Discovery Cove, 2017–2020) states that, "Examples of such INHERENT RISKS include but are not limited to swimming; being in deep water; being near, interacting with and/or touching land or marine animals; scrapes; cuts; bruises; physical trauma; sunburn; broken or fractured bones; sprains, strains or muscle tears; and/or more serious injuries or illnesses, including death" [emphasis original]. Cited in Visser *et al.* (2021) (see endnote 14).
27. From an international survey of 400 people who worked professionally with marine mammals, half had suffered traumatic injuries, and participants in dolphin therapy programmes have been slapped, bitten and rammed (the latter at least once resulting in a broken rib and a punctured lung). See Mazet, J.A.K., Hunt, T.D. & Ziccardi, M.H. (2004). Assessment of the risk of zoonotic disease transmission to marine mammal workers and the public: Survey of occupational risks. United States Marine Mammal Commission, Bethesda, Maryland, USA, 55 pp; Hunt, T.D., Ziccardi, M.H., Gulland, F.M., Yochem, P.K., Hird, D.W., Rowles, T. & Mazet, J.A. (2008). Health risks for marine mammal workers. *Diseases of Aquatic Organisms* 81: 81–92.
28. Spiegl, M., Trouwborst, A. & Visser, I.N. (2019). Mission creep in the application of wildlife law: The progressive dilution of legal requirements regarding a wild-born orca kept for 'research' purposes. *Review of European, Comparative & International Environmental Law*. 28(3): 328–338, [DOI: 10.1111/reel.12270](#).
29. For a case study of the challenges facing NGOs to hold European Institutions and EU Member States accountable for ensuring captive cetacean welfare, see Spiegl *et al.* (2019) in endnote 28.
30. Carvajal, Á. (2022). [La Ley de Bienestar Animal excluye de su aplicación a los perros de caza y los delfines](#). *El Mundo*, 22 December 2022.
31. Per CITES and legal requirements under [EC Directive 1999/22, EU CITES Regulations 338/97](#).

