

All experimental work with protected animals which has the potential to cause suffering is regulated under the Animals (Scientific Procedures) Act 1986 (Amended Regulations 2012) usually referred to as ASPA. This regulation requires researchers to minimise animal use and harms, and report the numbers of individuals used and severity of the harm they experienced to the Home Office. As a signatory of the [Concordat on Openness on Animal Research](#), Cefas is publishing its figures on experimental use of animals in 2016.

Cefas 2016 use of protected animals within scientific procedures

Species		Actual severity level					Total
		Sub-threshold	Non-recovery	Mild	Moderate	Severe	
Atlantic salmon	<i>Salmo salar</i>	10	1	4,480	72	5	4,568 (40%)
Sea/ Brown trout	<i>Salmo trutta</i>	-	-	4,549	-	-	4,549 (40%)
European eel	<i>Anguilla anguilla</i>	-	-	959	338	-	1,297 (11%)
Common carp	<i>Cyprinus carpio</i>	30		451	70	39	590 (5%)
Sea bass	<i>Dicentrarchus labrax</i>	26	4	111	164	4	309 (3%)
Smelt	<i>Osmerus eperlanus</i>	-	-	-	50	-	50 (0.4%)
Rainbow trout	<i>Oncorhynchus mykiss</i>			27	9		36 (0.3%)
Grayling	<i>Thymallus thymallus</i>	-	-	34	-	-	34 (0.3%)
All		66 (0.6%)	5 (0.0%)	10,611 (93%)	703 (6%)	48 (0.4%)	11,433

Cefas conducts applied research using fish which aims to: protect wild populations, biodiversity and the environment; reduce disease and improve welfare in cultured stocks. In support of these aims, in 2016 Cefas used 11,433 fish across eight species in scientific procedures that had the potential to cause suffering to the fish. The species used reflect their importance as Biodiversity Action Plan (BAP) species, to aquaculture, recreational fishing and the ornamental (pet) fish trade.

Cefas has a strong culture of care, supported by [Animal Welfare and Ethical Review Bodies](#) which ensure all animal use is justified. Researchers minimise numbers used via robust experimental designs, and minimise suffering by implementing humane end-points and frequent monitoring. This is reflected by the actual severity levels which fish experience – the vast majority of fish used in 2016 (93%) only reached a mild severity level, reflecting short-term exposure to mild pain, suffering or distress.

Glossary (terms as defined in the [Guidance on the Operation of ASPA](#)):

Non-recovery: “procedures which are performed entirely under general anaesthesia from which the animal shall not recover consciousness shall be classified as ‘non-recovery’.”

Sub-threshold: “if you, or a suitably qualified personal licensee deputed by you, consider the animal experienced a level of pain, suffering, distress or lasting harm that did not reach the lower threshold for regulation you should classify the severity (i.e. mild) as ‘sub-threshold’ in your records and for the annual statistical returns”