

Special Committee on Seals (SCOS) Response to Petition PE1519

The Potential Biological Removal (PBR) (Wade, 1998) and seal licensing scheme were introduced under the Marine (Scotland) Act 2010 so that the impact of shooting on the seal population could be scientifically and robustly assessed. This is in contrast to the situation in the past when no licences were issued and shooting was uncontrolled. The reduction in the number of harbour seals in the Moray Firth and the unsustainable level of shooting there led to the Moray Firth Seal Management plan and to the subsequent introduction of the licensing system across Scotland. There is scientific evidence that the level of shooting in the Moray Firth did have a major impact on the harbour seal population dynamics until the introduction of these controls (Butler et al., 2008; Matthiopoulos et al., 2014). Now the population decline has ceased (SCOS, 2013) and the abundance of harbour seals in the Moray Firth Management Unit is fluctuating without a trend.

The use of PBR in conjunction with Management Units was set up so that removals can be apportioned to different regions and populations. The PBR and the numbers issued on the licences are precautionary, and meant to allow population recovery, as the PBR calculation includes all forms of anthropogenic mortality of which shooting is only one. In some places the number applied for is much larger than the PBR and the number allocated to each Management Unit by Marine Scotland has been consistently well below the PBR (see Table 1 below and the Scottish Government website

<http://www.scotland.gov.uk/Topics/marine/Licensing/SealLicensing>). No harbour seal takes (i.e. the total number of seals that can be shot by the fishers under the granted licences) have ever been licensed on the east coast because of the decline in numbers and this is likely to be the case for Orkney as well in future.

However, the Act does say that shooting should be a last resort, but often net tensioning and other options to prevent or reduce seal-human conflict, such as acoustic deterrent devices (ADDs) are not implemented because of the costs involved. The economic argument would also be key to the case for the use of on-shore tank systems, although the committee are not aware that an economic evaluation of the use of these has been made. Anti-predator nets are not 100% effective and seals swimming between predator nets and cage netting have been recorded, suggesting animals may routinely evade the nets as they are currently used in Scotland. Indeed in other parts of world anti-predator nets are responsible for large numbers of marine mammals and seabird deaths¹ (Northridge et al, 2013). The use of ADDs in rivers has been shown to be effective (Graham, 2009) and specific modifications to bag nets can significantly reduce interactions (Harris, 2012), which is a potential way to move away from lethal control.

¹ Fifty one sea lions became entrapped in this way in a single incident in British Columbia in 2007
<http://www.cbc.ca/news/canada/british-columbia/story/2007/04/20/bc-sea-lions.html>

Table 1. Number of seal takes granted under Marine (Scotland) Act licences issued between 2011 and 2014 in relation to the number applied for and the PBR (Potential Biological Removal (PBR) is the number of individual seals that can be removed from the population without causing a decline in the population)

GREY SEALS	2011			2012			2013			2014		
Seal management area	Grey seals applied for	PBR	Grey seals granted	Grey seals applied for	PBR*	Grey seals granted	Grey seals applied for	PBR*	Grey seals granted	Grey seals applied for	PBR*	Grey seals granted
East Coast	246	277	132	849	277	114	142	314	82	128	314	74
Moray Firth	85	152	75	836	152	100	145	174	90	239	174	90
Orkney & North Coast	461	959	349	475	959	280	355	1448	220	330	1448	232
Shetland	384	163	120	341	163	109	240	236	105	198	236	105
South West Scotland	209	408	148	238	408	123	63	57	26	66	57	25
Western Isles	115	45	31	63	45	26	198	387	125	188	387	116
West Scotland	206	297	170	206	297	126	204	386	126	188	386	123
Grand Total	1706	2301	1025	3008	2301	878	1347	3002	774	1327	3002	765
COMMON SEALS												
	Common seals applied for	PBR	Common seals granted	Common seals applied for	PBR*	Common seals granted	Common seals applied for	PBR*	Common seals granted	Common seals applied for	PBR*	Common seals granted
East Coast	92	3	0	106	2	0	54	2	0	39	2	0
Moray Firth	52	23	20	82	20	19	34	17	16	24	17	10
Orkney & North Coast	53	18	10	58	18	7	37	17	5	39	17	6
Shetland	47	18	10	32	18	6	23	18	6	17	18	5
South West Scotland	101	54	40	120	54	43	88	35	30	91	35	26
Western Isles	153	35	31	104	35	30	75	82	45	71	82	41
West Scotland	296	442	203	310	442	184	291	446	163	266	446	152
Grand Total	794	593	314	812	589	289	602	617	265	547	617	240

References

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