

## Corrigendum

### A correction to “Estimating seabed pressure from demersal trawls, seines and dredges based on gear design and dimensions”<sup>†</sup>

Ole R. Eigaard,<sup>1\*</sup> Francois Bastardie,<sup>1</sup> Mike Breen,<sup>2</sup> Grete E. Dinesen,<sup>1</sup> Niels T. Hintzen,<sup>3</sup> Pascal Laffargue,<sup>4</sup> Lars O. Mortensen,<sup>1</sup> J. Rasmus Nielsen,<sup>1</sup> Hans Nilsson,<sup>5</sup> Finbarr G. O'Neill,<sup>6</sup> Hans Polet,<sup>7</sup> David G. Reid,<sup>8</sup> Antonello Sala,<sup>9</sup> Mattias Sköld,<sup>5</sup> Chris Smith,<sup>10</sup> Thomas K. Sørensen,<sup>1</sup> Oliver Tully,<sup>8</sup> Mustafa Zengin,<sup>11</sup> Adriaan D. Rijnsdorp<sup>3</sup>

<sup>1</sup>Charlottenlund Castle, National Institute for Aquatic Resources, Technical University of Denmark, 2920 Charlottenlund, Denmark

<sup>2</sup>Norway, Institute of Marine Research, 5817 Bergen, P.O. Box 1870

<sup>3</sup>the Netherlands, IMARES, 1970 AB IJmuiden, P.O. Box 68

<sup>4</sup>Nantes, IFREMER, France

<sup>5</sup>Department of Aquatic Resources, Institute of Marine Research, Swedish University of Agricultural Sciences, Turistgatan 5, Lysekil 45330, Sweden

<sup>6</sup>Marine Scotland Science, 375 Victoria Rd, Aberdeen, AB11 9DB, Scotland

<sup>7</sup>Animal Sciences Unit - Fisheries and Aquatic Production, Institute for Agricultural and Fisheries Research, Ankerstraat 1, Oostende, 8400, Belgium

<sup>8</sup>Marine Institute, Galway, Ireland

<sup>9</sup>CNR, Ancona, Italy

<sup>10</sup>Hellenic Centre for Marine Research, Crete, Greece

<sup>11</sup>Central Fisheries Research Institute, Kasüstü, Trabzon, 61100, Turkey

\*Corresponding Author: tel: +45 35883374; fax: +45 35883333; e-mail: ore@aqua.dtu.dk

Eigaard, O. R., Bastardie, F., Breen, M., Dinesen, G. E., Hintzen, N. T., Laffargue, P., Mortensen, L. O., Rasmus Nielsen, J., Nilsson, H., O'Neill, F. G., Polet, H., Reid, D. G., Sala, A., Sköld, M., Smith, C., Sørensen, T. K., Tully, O., Zengin, M., Rijnsdorp, A. D. A correction to “Estimating seabed pressure from demersal trawls, seines and dredges based on gear design and dimensions”. – ICES Journal of Marine Science, 73: 2420–2423.

The Authors wish to update some values given in the article that were incorrect in the submitted version. The corrections are as listed below:

1. An updated version of Table 3 is provided below, with corrected information for métier names and order of appearance;
2. Results: Seabed penetration by gear component: paragraph 2: line 5: “>2” should be “≥2”;
3. An updated version of Table 5 is provided below based on corrected information from Table 3;
4. Results: Swept area per fishing hour of average vessels by métier: paragraph 2: lines 4-7:

<sup>†</sup>Eigaard, O. R., Bastardie, F., Breen, M., Dinesen, G. E., Hintzen, N. T., Laffargue, P., Mortensen, L. O., Nielsen, J. R., Nilsson, Hans C., O'Neill, F. G., Polet, H., Reid, David G., Sala, A., Sköld, M., Smith, C., Sørensen, T. K., Tully, O., Zengin, M., and Rijnsdorp, A. D. Estimating seabed pressure from demersal trawls, seines, and dredges based on gear design and dimensions. – ICES Journal of Marine Science, 73: i27–i43.

"This is ~ 30% more than the total swept-area estimate of otter trawling for Nephrops and mixed demersal fish (~ 1.2 km<sup>2</sup>), for which impact at the subsurface level is estimated to be the highest of all métiers (~ 0.3 km<sup>2</sup>)"

should be:

"This is ~ 100% more than the total swept area estimate of otter trawling for demersal fish (~ 0.8 km<sup>2</sup>), for which impact at the subsurface level is estimated to be ~ 0.1 km<sup>2</sup>".

5. An updated version of Figure 11 is provided below with corrected information from Table 5.

The Authors wish to apologize for these errors, which do not affect the conclusions of the work.

**Table 3** BENTHIS métiers.

Main gear type	BENTHIS-Métier	Common single species fisheries in the different métiers		Common primary target species of the mixed fisheries in the different métiers (secondary target species in parentheses)						
OTs	OT_CRU	NEP	PRA	MIX <sup>a</sup>						
	OT_DMF	COD	PLE							
	OT_MIX				ARA	DPS	TGS	(ARS)	(DPS)	(NEP)
	OT_MIX_CRU				PLE	SOL	MON	(TUR)	(MEG)	(CTC)
	OT_MIX_DMF_BEN				WHG	HAD	HKE	(POK)	(COD)	(MON)
	OT_MIX_DMF_PEL				NEP	(PLE)	(COD)	(LEM)	(WHG)	(HAD)
	OT_MIX_CRU_DMF							(MON)	(TUR)	(MUT)
	OT_SPF	SAN	SPR							(CTC)
TBBs	TBB_CRU	CSH								
	TBB_DMF	PLE	SOL		PLE	SOL	(TUR)			
	TBB_MOL	RPW								
DRBs	DRB_MOL	SCE	MUS	OYF						
DSs	SDN_DMF	PLE	COD		PLE	COD	(PLE)	(COD)		
	SSC_DMF	PLE	COD		PLE	COD	HAD	(PLE)	(COD)	(HAD)
										(POK)

Explanations for the species abbreviations can be found in [Supplementary Table S3](#). OT, otter trawl; TBB, beam trawl; SDN, anchored seine/Danish seine; SSC, flyshooting/Scottish seine; DRB, dredge.

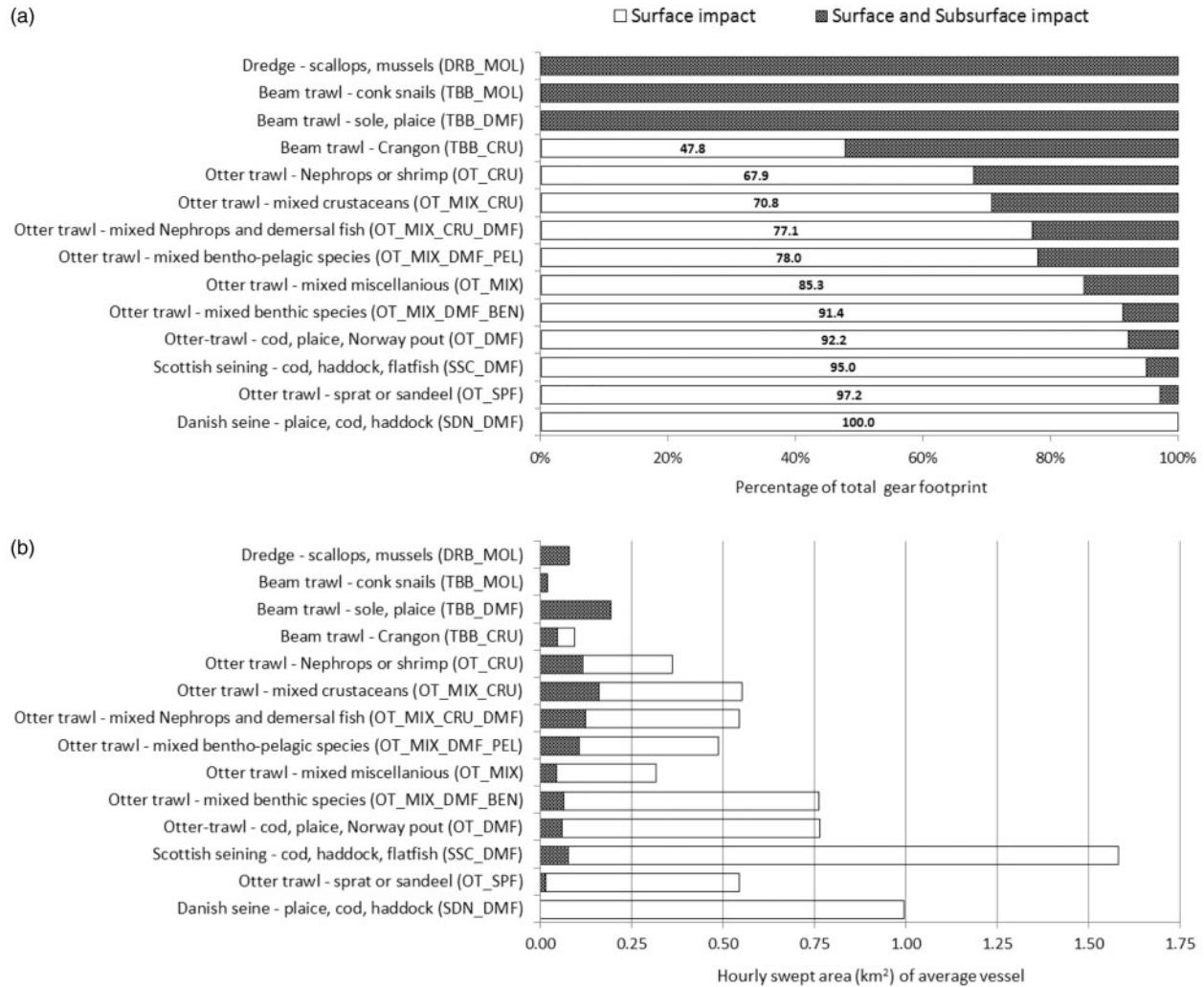
<sup>a</sup>Species not specified in questionnaire, only "MIX" informed.

**Table 5** Averages of component proportions of total gear footprint, of towing speed over ground, of seine haul duration and rope diameter, and of vessel size for the BENTHIS métiers.

Main gear type	BENTHIS métier	Typical target species	Proportion of total footprint size (%)			Towing speed, seine haul duration and seine rope diameter			Vessel size				
			Doors/ clumps/ weights/ bridles	Sweeps and bristles	Ground gear	Beam shoes	Ticker chains	Seine rope	Observations (knots)	Towing speed	Seine haul duration (hours)	Seine rope diameter (mm)	
OTs	OT_CRU	Nephrops or shrimp	19	2.7 ( $\pm 1.1$ )	67.9 ( $\pm 20.5$ )	29.4 ( $\pm 18.1$ )		54	2.5 ( $\pm 0.3$ )		122	342.5 kW ( $\pm 210.0$ )	
	OT_DMF	Cod or plaice or Norway trout	5	1.6 ( $\pm 0.3$ )	86.0 ( $\pm 19.2$ )	12.4 ( $\pm 2.5$ )		7	3.1 ( $\pm 0.2$ )		33	441.7 kW ( $\pm 265.3$ )	
	OT_MIX	Species not informed	7	1.7 ( $\pm 0.5$ )	80.9 ( $\pm 15.9$ )	17.4 ( $\pm 12.4$ )		66	2.8 ( $\pm 0.2$ )		93	400.6 kW ( $\pm 186.3$ )	
	OT_MIX_CRU	Mixed Crustaceans	6	1.1 ( $\pm 0.1$ )	70.8 ( $\pm 8.9$ )	28.1 ( $\pm 9.7$ )		45	3.0 ( $\pm 0.2$ )		45	681.0 kW ( $\pm 58.3$ )	
	OT_MIX_DMF_BEN	Mixed benthic fish	8	1.4 ( $\pm 0.6$ )	84.1 ( $\pm 5.8$ )	14.5 ( $\pm 8.2$ )		18	2.9 ( $\pm 0.2$ )		48	244 m ( $\pm 65$ )	
	OT_MIX_DMF_PEL	Mixed benthopelagic fish	71	2.5 ( $\pm 1.2$ )	58.5 ( $\pm 29.3$ )	39.0 ( $\pm 16.5$ )		182	3.4 ( $\pm 0.4$ )		192	23.7 m ( $\pm 56$ )	
	OT_MIX_CRU_DMF	Nephrops and mixed fish	12	1.4 ( $\pm 0.6$ )	70.0 ( $\pm 12.2$ )	28.6 ( $\pm 11.2$ )		50	2.6 ( $\pm 0.4$ )		66	199 m ( $\pm 62$ )	
	OT_SPF	Sprat or sandeel	4	2.8 ( $\pm 0.1$ )	63.5 ( $\pm 2.0$ )	33.7 ( $\pm 0.2$ )		2	2.9 ( $\pm 0.1$ )		19	34.4 m ( $\pm 12.0$ )	
TBs	TBB_CRU	Conger	7				95.6 ( $\pm 2.1$ )	4.4 ( $\pm 2.1$ )	8	3.0 ( $\pm 0.5$ )		8	210.6 kW ( $\pm 62.6$ )
	TBB_DMF	Sole and plaice	34				91.7 ( $\pm 3.4$ )	8.3 ( $\pm 3.4$ )	47	5.2 ( $\pm 1.3$ )		48	822.2 kW ( $\pm 376.2$ )
	TBB_MOL	Thomus' Rapa whelk	22				94.5 ( $\pm 0.8$ )	5.5 ( $\pm 0.8$ )	21	2.4 ( $\pm 0.3$ )		22	10.1 m ( $\pm 2.8$ )
DRBs	DRB_MOL	Scallops or mussels	33				100 ( $\pm 0.0$ )		33	2.5 ( $\pm 0.0$ )		33	24.6 m ( $\pm 56$ )
SDs	SDN_DMF	Plaice or cod	47				100 <sup>a</sup>	90.0 <sup>a</sup>	43	0 - 25 <sup>b</sup>	27.2 ( $\pm 6.0$ )	46	167.7 kW ( $\pm 54.9$ )
	SSC_DMF	Cod, haddock, flatfish	8				100 <sup>a</sup>	90.0 <sup>a</sup>	6	0 - 3.0 <sup>b</sup>	43.4 ( $\pm 6.0$ )	8	23.1 m ( $\pm 45$ )

Standard deviations in parentheses.

<sup>a</sup>For the DSs, the component percentages of the total footprint size are based on assumptions as detailed in the methods section.<sup>b</sup>The towing speed range for DSs informs start and endpoint of a gradual increase in seine speed over ground during the individual fishing operation (Supplementary Methods section).



**Figure 11.** Proportion of total gear footprint (a) and the area of seabed swept in 1 h of fishing with an average-sized vessel (b) with impact at the surface level and at both the surface and the subsurface level for the 14 BENTHIS métiers.