Text S1. Model selection:

We compared the fit of the candidate Linear Models (LMs) (those including length and length:location interaction) to an equivalent null model (including only location) using AIC (Akaike Information Criterion). Although the model with the lowest AIC is likely to be the most parsimonious, AIC is only an estimate of parsimony. Therefore, following Richards *et al.* (2008), if both candidate models had an AIC ≥ 6 units less than the null model and were within 6 AIC units of each other we chose the least complex model (that included only length as a predictor) to prevent an overly-complex model being selected.
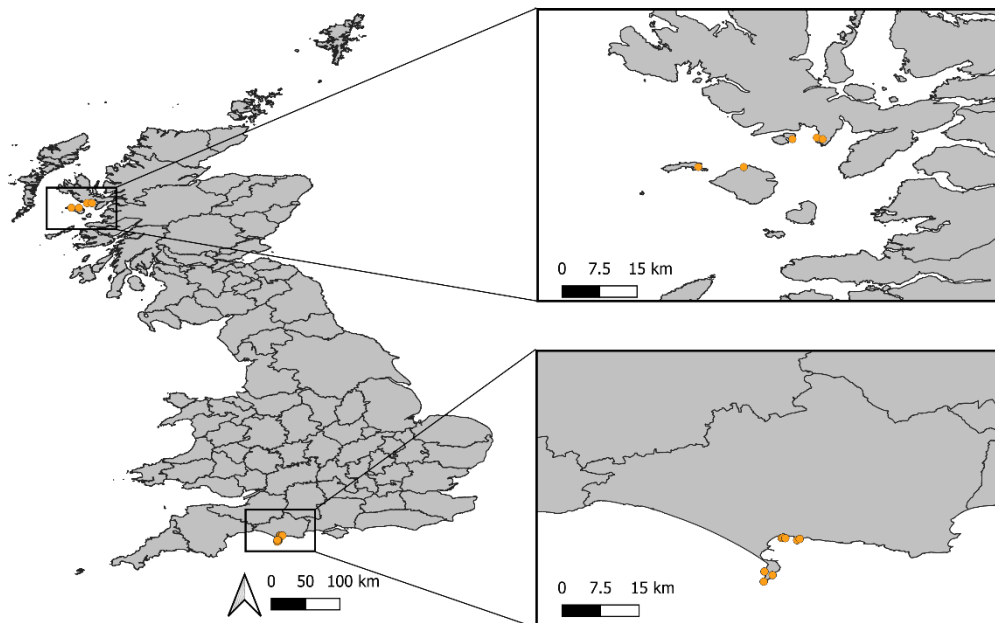

Fig. S1. Map showing sampling locations in the Isle of Skye and Dorset. World Geodetic System 1984 (WGS84).
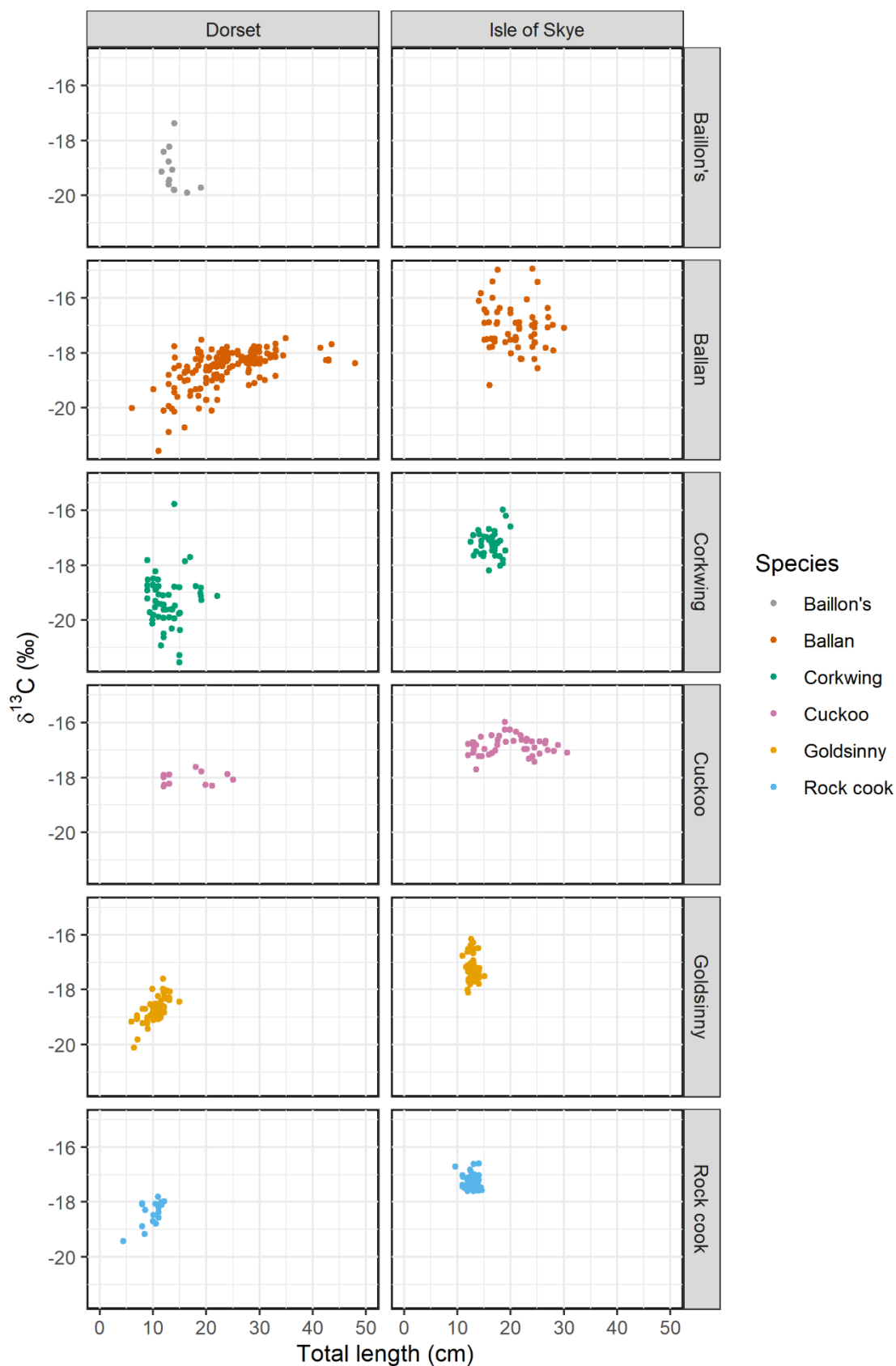
Fig. S2. Variation of δ^{13}C values of muscle tissue with length (cm) of 6 species of wrasse in Dorset and five species of wrasse from the Isle of Skye (expressed in ‰).

Fig. S3. Variation of δ^{53}N values of muscle tissue with length (cm) of 6 species of wrasse in Dorset and five species of wrasse from the Isle of Skye (expressed in ‰).

Fig. S4. Variation of δ^{34}S values of muscle tissue with length (cm) of 6 species of wrasse in Dorset and five species of wrasse from the Isle of Skye (expressed in ‰).

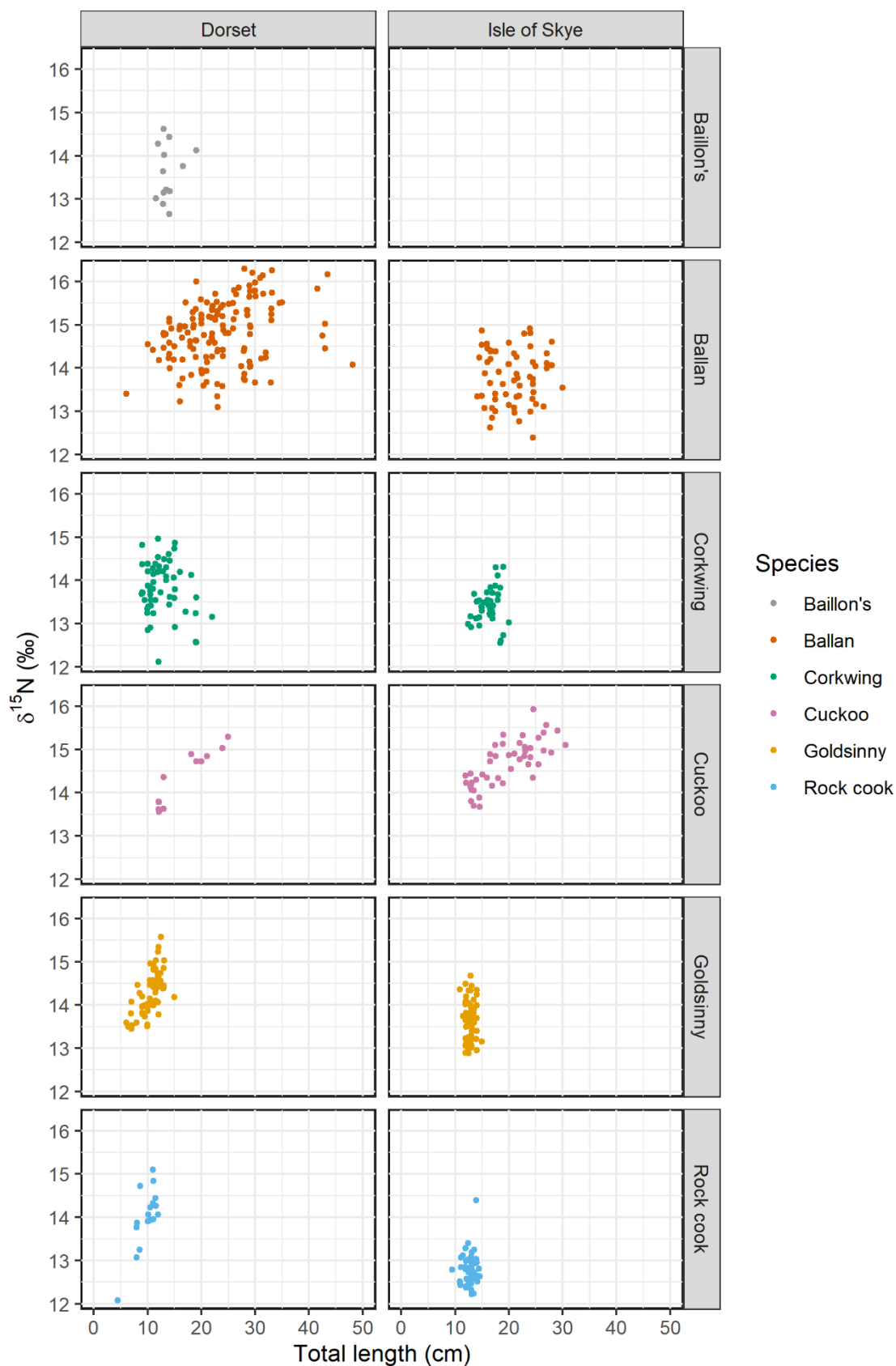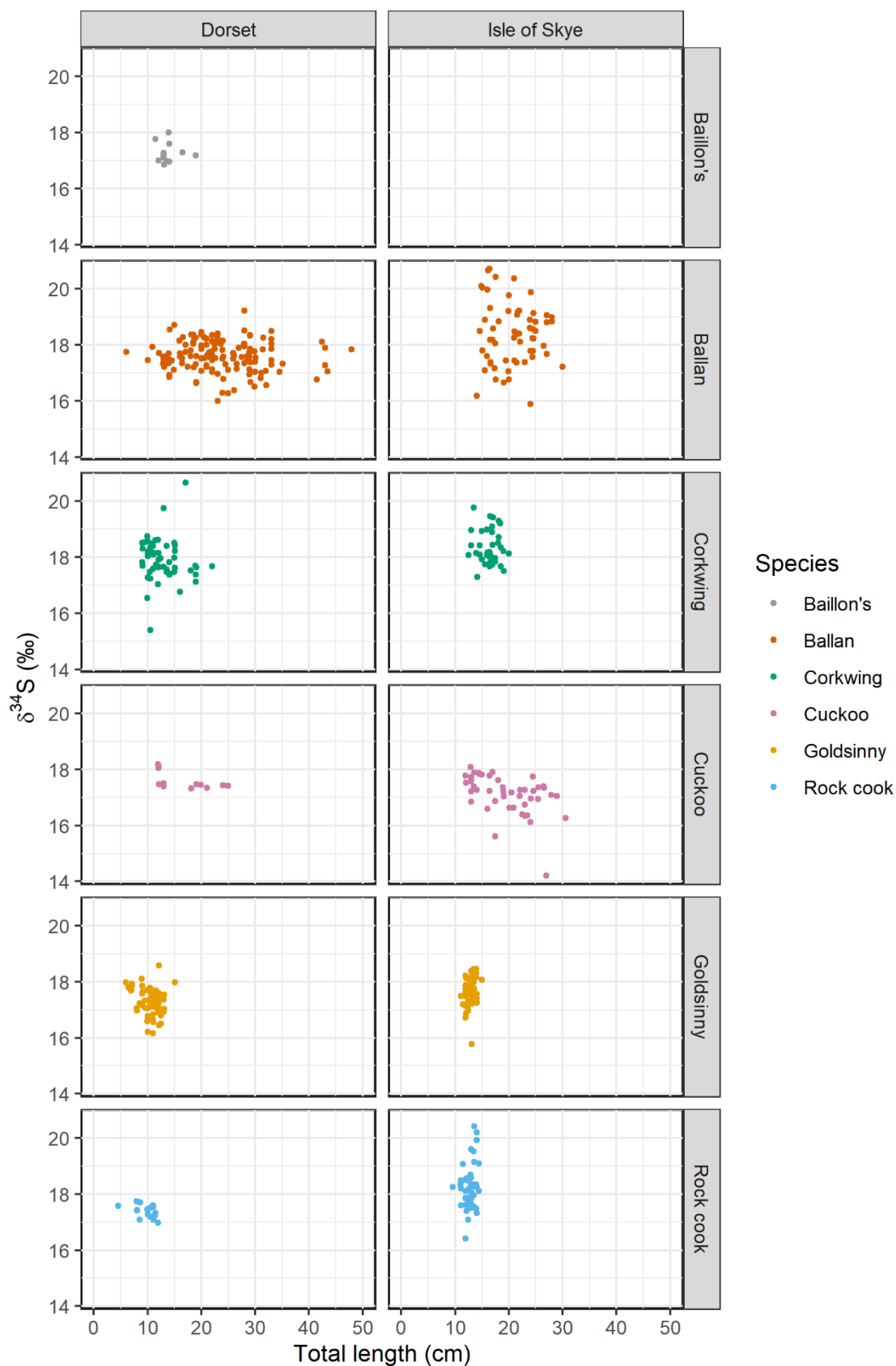Table S1. Accepted and measured values ± SD of the international and internal reference materials.

Standard		Measured				Accepted		
		$d^{15}N$	$d^{13}C$	$d^{34}S$		$d^{15}N$	$d^{13}C$	$d^{34}S$
CNS1.1	mean	4.69	-19.94	6.39	mean	4.84	-19.85	6.44
	sd	0.31	0.11	0.38	sd	0.15	0.1	0.29
CNS2.1	mean	24.17	-37.66	13.18	mean	24.17	-37.59	13.09
	sd	0.34	0.09	0.58	sd	0.1	0.09	0.38
CNS3.1	mean	3.27	-7.66	1.7	mean	2.91	-7.45	1.58
	sd	0.26	0.77	0.66	sd	0.12	0.15	0.42
WMK	mean	6.26	-25.21	9.42	mean	6.1	-25.02	9.73
	sd	0.03	0.06	0.01	sd	0.12	0.09	0.19
USGS88	mean	14.87	-15.74	16.89	mean	14.96	-16.06	17.1
	sd	0.15		0.14	sd	0.14	0.07	0.44
USGS43	mean	8.33	-20.79	10.15	mean	8.44	-21.28	10.46
	sd	0.08	0.06	0.12	sd	0.1	0.1	0.22
USGS91	mean	1.7			mean	1.78	-28.28	
	sd	0.04			sd	0.12	0.08	
USGS42	mean	7.75	-20.43	7.9	mean	8.05	-21.09	7.84
	sd	0.1	0.05	0.18	sd	0.1	0.1	0.25
ALAGEL	mean	2.65	-8.47	3.53	mean	2.4	-9.18	
	sd	0.41	0.7	17	sd	0.19	0.17	

Table S2. Median percentage overlap in ellipsoids (Bayesian 75% ellipsoid generated using $\delta^{13}C$, $\delta^{15}N$, and $\delta^{34}S$ data) with 95% credible intervals showing the uncertainty in the overlap estimates between each pair of wrasse species in each site. BL: Baillon's; BA: Ballan; CW: Corkwing; CK: Cuckoo, GO: Goldsinny; RC: Rock cook. Overlap figures presented in bold are those that exceed the predetermined 60% overlap threshold. Data presented graphically in Figs. 2 & 3 (in the main text). The table should be read by rows: e.g. in Dorset, Baillon's wrasse overlaps ballan wrasse by 18%, and ballan wrasse overlapped Baillon's wrasse by 29%.

Site		BL	BA	CW	CK	GO	RC
Dorset	**BL**	—	18 (7–37)	29 (17–45)	22 (0–54)	**61 (32–89)**	59 (27–94)
	BA	29 (11–48)	—	30 (20–41)	**73 (48–96)**	**76 (62–89)**	**60 (38–82)**
	CW	**73 (47–100)**	47 (34–62)	—	56 (28–87)	**76 (59–97)**	**74 (53–97)**
	CK	11 (0–27)	25 (12–41)	12 (5–21)	—	26 (6–50)	42 (19–72)
	GO	29 (14–46)	23 (16–31)	15 (9–21)	23 (9–42)	—	44 (25–65)
	RC	30 (12–51)	20 (11–33)	15 (9–25)	41 (16–70)	26 (6–50)	—
Isle of Skye	**BA**	—	—	**92 (78–100)**	35 (21–52)	**98 (88–100)**	52 (31–72)
	CW	—	23 (14–35)	—	10 (1–20)	52 (33–75)	44 (26–63)
	CK	—	9 (4–15)	10 (2–21)	—	31 (18–48)	0 (0–1)
	GO	—	20 (12–28)	41 (27–57)	24 (13–36)	—	25 (14–38)
	RC	—	9 (5–14)	31 (19–45)	0 (0–2)	22 (11–35)	—

Table S3: Parameter estimates (and standard errors) for drivers of variation in (a) $\delta^{15}N$, (b) $\delta^{13}C$, and (c) $\delta^{34}S$ in candidate and null models for remaining models that passed model diagnostics checks. M_{xx_1} and M_{xx_2} represents the candidate model(s), and M_{xx_NULL} is the null model (containing only location as a predictor for rock cook and 1 as a predictor for Baillon's). k is the number of parameters in each model, LL is the log-liklihood, AIC is the absolute Akaike Information Criterion, and ΔAIC is the relative difference in AIC from the M_{xx_BEST}. Dorset was used as the base level of the Location factor.

(a)	β_0	Location	Length (cm)	Length: Location	k	LL	AIC	ΔAIC
M_{BL_1}	12.70 (1.34)	–	0.07 (0.10)	–	3	-11.87	29.74	0
M_{BL_NULL}	13.61 (0.18)	–	–	–	2	-12.14	28.28	-1.46

(b)	β_0	Location	Length (cm)	Length: Location	k	LL	AIC	ΔAIC
M_{BL_1}	-17.20 (1.49)	–	-0.14 (0.11)	–	3	-13.25	32.49	0
M_{BL_NULL}	-19.13 (0.21)	–	–	–	2	-14.18	32.36	-0.13

(c)	β_0	Location	Length (cm)	Length: Location	k	LL	AIC	ΔAIC
M_{RC_1}	17.92 (0.86)	-1.71 (1.44)	-0.06 (0.09)	0.22 (0.12)	5	-67.32	144.64	0
M_{RC_2}	16.91 (0.64)	0.73 (0.27)	-0.05 (0.06)	–	4	-68.87	145.74	1.10
M_{RC_NULL}	17.37 (0.16)	0.87 (0.19)	–	–	3	-69.15	144.31	-0.33
M_{BL_1}	17.35 (0.73)	–	-0.01 (0.05)	–	3	-3.89	13.77	0
M_{BL_NULL}	17.26 (0.09)	–	–	–	2	-3.89	11.79	1.98

Table S4: Median percentage overlap in ellipsoids (Bayesian 75% ellipsoid generated using $\delta^{13}C$, $\delta^{15}N$, and $\delta^{34}S$ data) with 95% credible intervals showing the uncertainty in the overlap estimates between returned and landed individuals of each wrasse species in each site. Overlap figures presented shaded darker those that exceed the predetermined 60% overlap threshold. The table should be read by rows: e.g. in Dorset, returned, undersize ballan overlapped landed ballan by 49%, whereas landed ballan overlapped returned, undersized ballan by 47%.

Dorset

Ballan	Returned (under)	Landed	Returned (over)
Returned (under)	—	49 (29–70)	31 (13–50)
Landed	47 (32–63)	—	65 (47–83)
Returned (over)	22 (12–36)	48 (32–64)	—

Corkwing	Returned (under)	Landed	Returned (over)
Returned (under)	—	33 (14–52)	—
Landed	92 (73–100)	—	—
Returned (over)	—	—	—

Goldsinny	Returned (under)	Landed	Returned (over)
Returned (under)	—	37 (20–59)	—
Landed	42 (22–68)	—	—
Returned (over)	—	—	—

Isle of Skye

Ballan	Returned (under)	Landed	Returned (over)
Returned (under)	—	—	—
Landed	—	—	84 (60–100)
Returned (over)	—	42 (22–65)	—

Corkwing	Returned (under)	Landed	Returned (over)
Returned (under)	—	77 (56–100)	—
Landed	25 (10–43)	—	—
Returned (over)	—	—	—

Cuckoo	Returned (under)	Landed	Returned (over)
Returned (under)	—	—	—
Landed	—	—	25 (9–44)
Returned (over)	—	51 (26–88)	—

Rock cook	Returned (under)	Landed	Returned (over)
Returned (under)	—	58 (30–85)	—
Landed	45 (19–79)	—	—
Returned (over)	—	—	—

References

Richards SA (2008) Dealing with overdispersed count data in applied ecology. Journal of Applied Ecology 45:218–227