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**Biomass Calculations
to accompany Foreshore Licence Application
for Seaweed Harvesting
around Muckross Head, Co. Donegal**

Produced by

AQUAFACT International Services Ltd

On behalf of

AlgAran Seaweed

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Twenty-eight locations were surveyed from the proposed harvesting area around Muckross Head. The biomass per 0.25m² quadrat was determined for a number of seaweed species. The locations assessed for biomass can be seen in Figure 1.



Figure 1: Biomass assessment locations

Table 1 shows the biomass determinations for each species assessed. The individual biomass values per species can be seen in this table, along with average biomass in g/0.25m², g/m², kg/m² and tonne/ha.

Table 1: Biomass calculations per species

Site	Species	Biomass (g/0.25m ²)	Average Biomass (g/0.25m ²)	Average Biomass (g/m ²)	Average Biomass (kg/m ²)	Average Biomass (tonne/ha)
A1	<i>Ulva spiralis</i>	284	498.33	1993.33	1.993	19.93
B1	<i>Ulva spiralis</i>	563				
C1	<i>Ulva spiralis</i>	648				
A2	<i>Palmaria palmata</i>	351	281.33	1125.33	1.125	11.25
B3	<i>Palmaria palmata</i>	246				
C6	<i>Palmaria palmata</i>	247				
A4	<i>Ulva lactuca</i>	154	154	616	0.616	6.16
A3	<i>Fucus serratus</i>	1098	1670.67	6682.67	6.683	66.83
B4	<i>Fucus serratus</i>	2840				
C4	<i>Fucus serratus</i>	1074				
A5	<i>Himanthalia elongata</i>	2444	2653.67	10614.67	10.615	106.15
B2	<i>Himanthalia elongata</i>	3095				
C2	<i>Himanthalia elongata</i>	2422				
D5	<i>Laminaria digitata</i>	665	2333.8	9335.2	9.3352	93.352
D6	<i>Laminaria digitata</i>	2838				
B5	<i>Laminaria digitata</i>	2943				
C5	<i>Laminaria digitata</i>	2945				
A6	<i>Laminaria digitata</i>	2278				
B6	<i>Chondrus crispus</i>	869	494.33	1977.33	1.977	19.77
A7	<i>Chondrus crispus</i>	223				
C3	<i>Chondrus crispus</i>	391				
B7	<i>Ulva-Palmaria</i>	144	144	576	0.576	5.76
B8	<i>Saccharina latissima</i>	307	307	1228	1.228	12.28
C7	<i>Alaria esculenta</i>	868	868	3472	3.472	34.72
D1	<i>Porphyra umbilicalis</i>	350	272.33	1089.33	1.089	10.89
D2	<i>Porphyra umbilicalis</i>	214				
D3	<i>Porphyra umbilicalis</i>	253				
D4	<i>Fucus vesiculosus</i>	771	771	3084	3.084	30.84

Figure 2 shows the rocky intertidal area around Muckross Head. The rocky intertidal covers an area of 6.62Ha. The combined average biomass of all seaweed species is 4.5kg/m² (45.04 tonne/ha). The total seaweed biomass for this section of coastline is estimated at 298.04 tonnes.



Figure 2: Rocky intertidal zone around Muckross Head