

SECTION B

Small-Scale Fishing:
Permit Conditions:
Seaweed Fishery

Fishing season: 2024/2025

DATE OF APPROVAL:

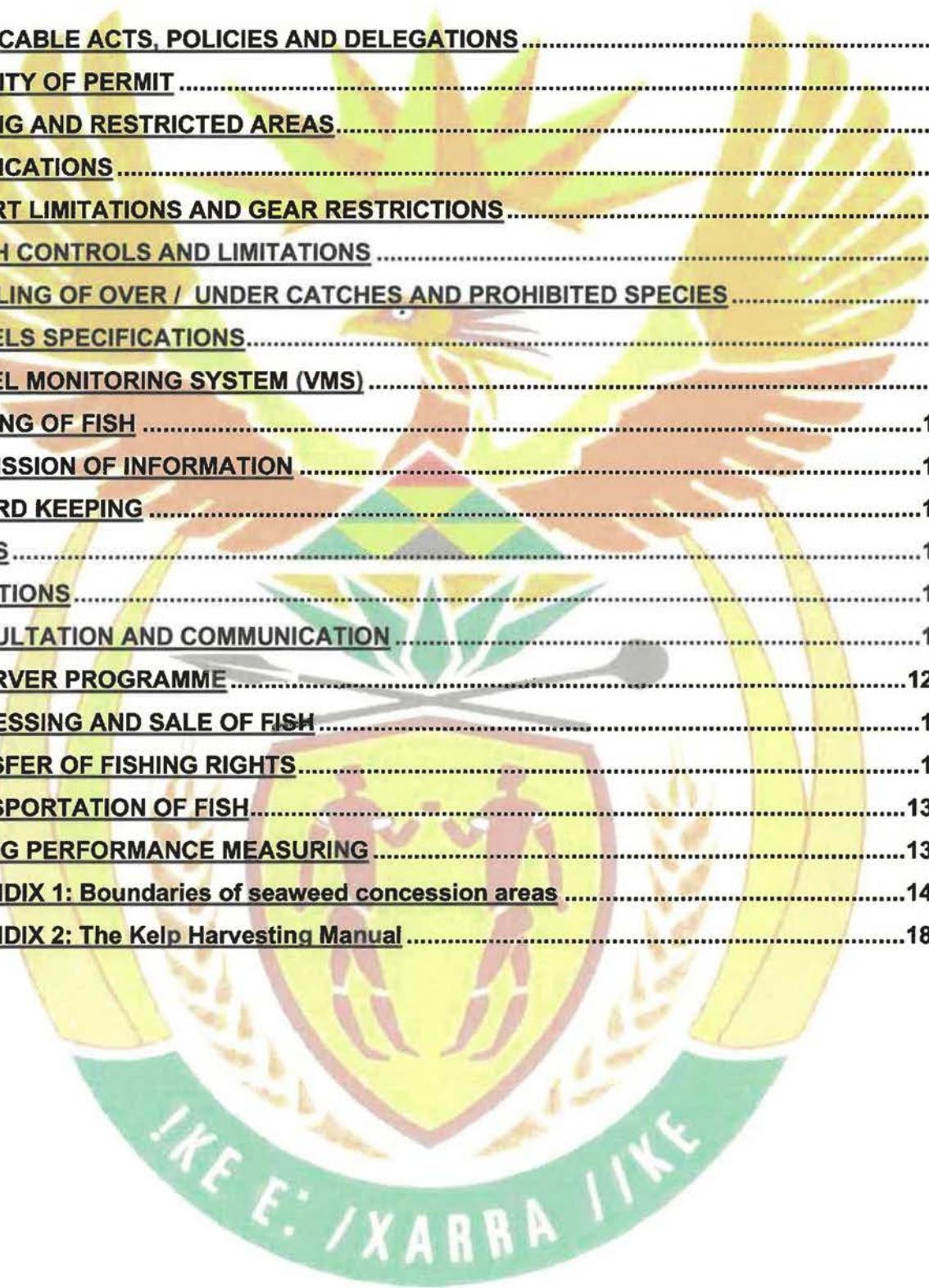
17 April 2024



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1. APPLICABLE ACTS, POLICIES AND DELEGATIONS

1.1. This permit is issued subject to the provisions and regulations of the following laws but not limited to:

- (a) The Marine Living Resources Act, 1998 (Act No. 18 of 1998) (MLRA) as amended and Regulations promulgated thereunder;
- (b) The National Environmental Management Act, 1998 (Act No.107 of 1998) (NEMA) and Regulations promulgated thereunder;
- (c) The National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004) (NEMBA) and Regulations promulgated thereunder;
- (d) The National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003) (NEMPA) and Regulations promulgated thereunder;
- (e) The National Environmental Management: Integrated Coastal Management Act, 2008 (Act No.24 of 2008) (NEMA:ICMA) and Regulations promulgated thereunder;
- (f) The Sea Birds and Seals Protection Act, 1973 (Act No. 46 of 1973) (SBSPA) and Regulations promulgated thereunder;
- (g) The Fire Arms Controls Act, 2000 (Act No. 60 of 2000) (FACA) and Regulations promulgated thereunder;
- (h) The International Convention for the Prevention of Pollution from Ships Act, 1986 (Act No. 2 of 1986) (ICPPSA) and Regulations promulgated thereunder;
- (i) The South African Maritime Safety Authority Act, 1998 (Act 5 of 1998) (SAMSAA) and Regulations promulgated thereunder;
- (j) The Animals Protection Act, 1962 (Act No. 71 of 1962) (APA) and the Regulations promulgated thereunder;
- (k) The Standards Act, 2008 (Act No. 8 of 2008) (SA) and the Regulations promulgated thereunder;
- (l) The National Regulator for Compulsory Specifications Act, 2008 (Act No. 5 of 2008) (NRCSA) and the Regulations promulgated thereunder;
- (m) The National Ports Authority Act, 2005 (Act No. 12 of 2005) (NPAA) and the Regulations promulgated thereunder;
- (n) The Companies Act, 2008 (Act No. 71 of 2008) (CA) and the Regulations promulgated thereunder; and
- (o) The National Environmental Management Waste Act, (Act No. 59 of 2008) (NEMWA) and the Regulations promulgated thereunder.
- (p) The Marine Living Resources Act of 1998 ("the MLRA"), as amended in 2014 ("the Amendment Act") and Regulations relating to Small-Scale Fishing , 2015 ("the Regulations").

1.2. This permit is issued subject to the further provisions of the following policies:

- (a) Small-Scale Fishing Policy, 2012
- (b) Constitution of the small-scale fishing co-operative;
- (c) Specified grant of right conditions outlined to the fishing right holder
- (d) General policy on the allocation and management of fishing rights: 2013

(e) Policy on the Allocation and Management of Commercial Fishing Rights in the Seaweed Fishery: 2015 and

- 1.3. The Director: Small-Scale Fisheries Management (SSFM) shall be entitled to amend these permit conditions after consultation with the relevant stakeholders. In case of emergency the D: SSM shall be entitled to amend without consultation.
- 1.4. Any reference to the Permit Holder in these permit conditions includes the co-operative in whose name the long-term Small-scale commercial fishing right is allocated to ("the Right Holder") by the Minister or the delegated authority, its employees either permanent or temporary.

2. VALIDITY OF PERMIT

- 2.1. This permit shall be valid for the period indicated in Section A ("the permit").
- 2.2. This permit shall automatically expire and be invalid should:
 - (a) the right be cancelled or revoked in terms of Section 28 of the MLRA;
 - (b) the Maximum Sustainable Yield (MSY) allocated to the Permit Holder be collected or harvested;
 - (c) the fishing season end or be terminated;
 - (d) the right expire in terms of Section 18 of the MLRA;
 - (e) the permit be revoked, cancelled or suspended in terms of Section 28 of the MLRA and
 - (f) the validity period as set out in the Permit as indicated in paragraph 2.1 expire.

3. FISHING AND RESTRICTED AREAS

- 3.1. The Permit Holder shall only collect and or harvest seaweed in the area set out in the Permit during daylight hours. The boundaries of the seaweed harvesting or the concession areas are as indicated in Appendix 1.
- 3.2. Seaweed shall only be collected and or harvested by authorised collectors employed by the Permit Holder or its accredited representative(s) or contractor(s).
- 3.3. The Permit Holder, while engaged in collecting and or harvesting of seaweed shall ensure that:
 - (a) in the case of harvesting of intertidal seaweed, all limpets accidentally included with the collected and or harvested seaweed shall be removed and returned to the sea as soon as possible;
 - (b) no public nuisance is created whether by reason of unacceptable noise, smell or anything likely to endanger public health;
 - (c) all regulations relating to public health are complied with;
 - (d) its collectors are provided with proper means of identification, in the form of a tunic or identifying garment;

- (e) tunic or identifying garments are worn and visible whilst the harvesters are harvesting seaweed; and
- (f) a supervisor is in possession of appropriate authorisation (an individual identification card bearing their name, ID number, and the details of the cooperative)
- 3.4. The Permit Holder shall ensure that collecting, harvesting, drying and other treatment of seaweed in areas to which the public has legal access shall be carried out with proper and effective control so that the lawful use of the seashore by the public is not obstructed.
- 3.5. The Permit Holder shall ensure that all refuse or any obnoxious substance resulting from the Permit Holder's and his or her or its employees activities shall be promptly removed, or otherwise destroyed or disposed of in such a place as shall be directed by the Health Officer of the local authority or Fishery Control Officer (FCO).
- 3.6. The Permit Holder shall, if required, make arrangements to the satisfaction of the local authority concerned for the provision of seaweed drying sites.
- 3.7. Access to and from the seashore shall only be by way of routes approved by the State, local authority, or the owners of private property. The Permit Holder must, in terms of Government Notice No. 1399 of 21 December 2001, apply for the necessary permits to use a vehicle to access the seashore for a non-recreational activity.
- 3.8. Authorised officials and FCO's of this Department may inspect any of the activities, premises or records involved in terms of this permit.
- 3.9. The Permit Holder shall not utilise any other fishing permits whilst utilising this seaweed permit.
- 3.10. The Permit Holder or any of his or her or its employees or agents shall not undertake fishing in the MPAs as stipulated in the Marine Protected Act.
4. NOTIFICATIONS
- The Permit Holder shall only launch his or her or its vessel after providing the relevant FCO with full details of the vessel, the time he or she or it expects to launch or harvest seaweed and the expected time of landing the catch. The Permit Holder can give weekly notification of harvesting plan to FCO. The contact details of the relevant FCO's are indicated in Table 1 below.

Table 1: FCOs' contact details

DESIGNATED LANDING SITES	ADDRESS FOR FCO OFFICES	FCO CONTACT DETAILS	
Arniston	Arniston Harbour	Tel:	028 4459720
		Fax:	028 4459215
		Cell:	083 5386953

DESIGNATED LANDING SITES		ADDRESS FOR FCO OFFICES	FCO CONTACT DETAILS	
Cape Harbour	Town	Fisheries Foretrust Building Cape Town	Tel: Fax: Cell:	021 4023361 or 021 4023430 021 4023113 060 7898031
Centane		Centane	Tel: Cell:	047 4981163 0810881305
Doring Bay		Doring Bay	Tel: Cell:	027 2151211 or 027 2151608 0736717797 or 083 7928384
Elands Bay		Elands Bay	Tel: Cell:	(027) 432 1631 0736717797 or 0835278096
East London		East London Harbour	Tel: Fax: Cell:	043 7222091 043 7225861 073 0154588 or 078 2457604
Gansbaai Harbour		Gansbaai Harbour Office	Tel: Fax: Cell:	028 3840321 028 3841546 082 645 4795
Gordons Bay		Gordons Bay Harbour	Tel: Fax: Cell:	021 8561482 021 8565222 073 2645953
Hermanus		New Harbour Hermanus 248 Still Street Hermanus	Tel: Fax: Cell:	028 3122609 028 3130502 073 2645953
Hout Bay Harbour		Harbour Road Fisheries office, Hout Bay	Tel: Fax: Cell:	021 7902530 021 7902808 073 6606280
Jeffreys Bay		Port St Francis Harbour in St Francis Bay Area	Tel: Fax: Cell:	042 2931757 042 2932968 072 9881876
Kalk Bay		Kalk Bay Harbour	Tel: Fax: Cell:	021 7888313 021 7881038 082 771 8890
Kleinmond		P.O. Box 498, Kleinmond	Tel: Fax: Cell:	028 2714768 or 028 2715256 028 2714769 079 2667274

DESIGNATED LANDING SITES	ADDRESS FOR FCO OFFICES	FCO CONTACT DETAILS	
Kommetjie	P.O. Box 20, Kommetjie	Tel: Fax: Cell:	021 7832295 021 7835853 072 1954957
Laaiplek	Laaiplek	Tel: Fax: Cell:	022 7831035 022 7830407 082 7846970 or 0846353092
Lamberts Bay,	Lamberts Bay	Tel: Fax: Cell:	027 4321631 or 027 4321303 082 3212381 or 082 6110026 or 073 8825863
Mossel Bay Harbour	Aqua Plaza Mars Street Office 104, Mossel Bay	Tel: Fax: Cell:	044 6912939 044 6911617 083 6639155
Plettenberg Bay	Fisheries Offices Central beach	Tel: Fax: Cell:	044 3821938 044 3826567 084 4046483
Port Edward	Port Edward	Tel: Cell:	039 3111240 079 4449951
Port Elizabeth Harbour	21 Stanley Street Central P.E	Tel: Fax: Cell:	041 5864051 041 5850385 082 771906 or 083 3518295
Port Nolloth	Port Nolloth	Tel: Fax: Cell:	027 8518363 027 8518053 073 1229987 or 074 3099416 or 073 1229987
Port St. Johns	Port St. Johns	Tel: Cell:	047 5641985 072 1332480
Saldanha Bay Harbour	Saldanha Bay Harbour President Street Saldanha	Tel: Fax: Cell:	022 7141710 022 7143997 082 7718910 or 073 1646415 or 082 6545120 or 083 2311464 or 083 6523303 or 082 7846984

DESIGNATED LANDING SITES	ADDRESS FOR FCO OFFICES	FCO CONTACT DETAILS	
St Helena Bay	Sandy Point Harbour St Helena Bay	Tel:	022 7361188 or 022 7361125 or 022 7361118
		Fax:	022 7361530
		Cell:	078 7147422 or 0761350401 or 0736497940 or 0712914036
Stilbaai	Stilbaai Harbour	Tel:	028 7541026
		Fax:	028 7541463
		Cell:	082 9504126
Struisbaai	Struisbaai Harbour	Tel:	028 4356220
		Fax:	028 4356383
		Cell:	073 0086219 or 083 5386953
Yzerfontein	Yzerfontein	Tel:	022 4512344
		Fax:	022 4512267
		Cell:	082 5799137 or 073 0086192 or 083 7457092
Port Nolloth	Port Nolloth	Tel:	027-8518053
		Fax:	027-8518053
		Cell:	0731229987
Hondeklipbaai	Port Nolloth	Tel:	027-8518053
		Fax:	027-8518053
		Cell:	0731229987

5. EFFORT LIMITATIONS AND GEAR RESTRICTIONS

- 5.1. Kelp can be harvested in various ways, depending on what part of the plant is required. The effect on the kelp plant and on the environment depends on how the plant is cut. The main distinction to be made is whether or not the plant is killed by harvesting. If it is killed we call it "whole-plant harvesting", but if only some of the frond material is cut, and the plant is left alive, we call it "frond-only harvesting".
- 5.2. In the case of whole plant harvesting; the Permit Holder shall either harvest the whole kelp plant by cutting the stipe near its base (when stipe material is needed), or shall cut the whole kelp head, from a boat (when fronds are needed for abalone feed). The Permit Holder must not damage or cut the small plants (those with stipes of less than 0.5 m in length), because they will form the next generation of adult plants.

- 5.3. In the case of frond only harvesting; the fronds must be cut about 25 centimetres from where they join the primary blade using a sharp knife or sickle.
- 5.4. The Permit Holder allocated to harvest kelp must also adhere to the detailed methods as set out in the "Kelp Harvesting Manual" attached as Appendix 2.

6. CATCH CONTROLS AND LIMITATIONS

- 6.1. The Permit Holder shall only harvest the amount of fresh weight of kelp (whole kelp and or fronds) allocated to the cooperative in terms of the Maximum Sustainable Yield ("MSY") allocated on this permit.
- 6.2. There is no limit to the amount of other seaweed species that are allocated to the Right Holder to harvest unless otherwise specified.

7. HANDLING OF OVER / UNDER CATCHES AND PROHIBITED SPECIES

In the event that the allocation of the Permit Holder is under-caught, the Department will not consider any application for rollovers.

8. VESSELS SPECIFICATIONS

- 8.1. The Permit Holder shall not use any fishing vessel unless it bears the registration letters and numbers assigned thereto by the Director-General. Such letters and numbers shall be painted in white on a black background or in black on a white background on both sides of the bow in characters not less than 15 cm in height, 10 cm in breadth (except for figure "1") and 2 cm in thickness (width of stroke). The space between adjacent letters and figures shall be between 2 cm and 5 cm.
- 8.2. The letter "SW" must be displayed as stipulated in terms of regulation 78 promulgated under the MLRA.

9. VESSEL MONITORING SYSTEM (VMS)

- 9.1. The Permit Holder's nominated fishing vessel shall be fitted with a functional Vessel Monitoring System ("VMS") approved by the Chief Director: Monitoring, Control and Surveillance (CD: MCS).
- 9.2. It is the responsibility of the Permit Holder to ensure that the VMS is fully operational and that the VMS continues to transmit to the Department's Operations Room. The Permit Holder shall establish that the VMS unit is functional by contacting the Operations Room on telephone number (021) 402 3076 or (021) 402 3077 prior to sailing.

- 9.3. The VMS shall report every 15 minutes. Should the power supply to the satellite-tracking system be interrupted or the equipment become non-functional (for whatever reason), and the problem persist for more than two hours, the vessel shall immediately or immediately proceed to Port or landing site to have the VMS unit repaired.
- 9.4. In case where VMS units are non-functional due to technical problems and such Permit Holders Rights Holder Vessel Owner Skipper wish to proceed to sea without a functional VMS unit, the Permit Holders Rights Holder Vessel Owner Skipper shall obtain a written permission from the Department.
- 9.5. Only when written permission has been received from the CD: MCS shall the vessel proceed to sea. The permission to operate without a functional VMS shall be kept on board the vessel for the duration of each trip undertaken within the period of validity of the permission.

10. LANDING OF FISH

Not applicable in the seaweed fishery.

11. SUBMISSION OF INFORMATION

11.1. The Permit Holder shall submit to the Department's Customer Service Centre, Ground Floor, Foretrust Building, Martin Hammerschlag Way, Foreshore, Cape Town or Private Bag X2, Vlaeberg , 8018,) notification of any change of contact details, changes in shareholding, change of directorship, and change of authorised representative within 30 days of such change by completing the application form available at the Customer Service Centre.

11.2. Catch Statistics:

11.2.1. The Permit Holder shall submit to the Department on a monthly basis the following effort data on the stipulated *Seaweed (V1/13/5/1/E)* logsheet:

- (a) The weight of seaweed harvested monthly (stipulated as either kilograms dry or fresh weight) of each species.
- (b) The effort data details recorded on the logsheets shall be signed by the Permit Holder or its authorised representative, and co-signed and dated by the Local FCO and the departmental stamp should be placed on the catch form. Duplicate copies shall be retained by the Permit Holder for a period of five (5) years.

11.2.2. The properly completed and signed logsheets shall be posted by registered mail or hand delivered to Customer Services Centre, Private Bag X 2, Vlaeberg , 8018 (Attention: Seaweed Research Unit). The above logsheets must reach the Department on or before the 15th of the month following harvesting.

11.2.3. A nil return must be submitted for every month in which no seaweed has been collected and/or harvested.

11.2.4. Failure to submit logsheets within 15 days of the end of each month will result in institution of legal proceedings.

11.3. Socio-Economic Information:

The Permit Holder must provide any economic, socio-economic or financial information in the format as stipulated by the Department, when required by the Department.

12. RECORD KEEPING

12.1. The Permit Holder shall store at its registered place of business the original permit issued for the duration of the right.

12.2. The Permit Holder shall at all times for the duration of the right have available a certified copy of this permit on board the vessel or in the possession of a supervisor at the site of collecting and/or harvesting of seaweed, which shall be produced on demand by any FCO.

13. LEVIES

13.1. Not applicable.

14. VIOLATIONS

14.1. A breach of the provisions of the MLRA, its regulations and/or these Permit Conditions by the Permit Holder, or its employees (whether permanent or temporary), his or her or its contractors, agents, advisers or the skipper of the vessel may result in the initiation of legal proceedings (which may include Section 28 proceedings in terms of the MLRA and or criminal proceedings).

14.2. A breach referred to in paragraph 14.1 includes, but is not limited to:

- (a) failure to provide information to which the Department is entitled to, or the submission of information which is not true or complete and
- (b) failing to effectively utilise the permit.

14.3. The Permit Holder shall not land, sell, receive or process any fish taken by any means in contravention of the MLRA.

14.4. The Permit Holder shall safely remove all waste material, garbage and pollutants produced in the course of his or her fishing or related activity. Should the Permit Holder discard any inorganic waste, garbage or pollutants into the sea or seashore or

shoreline, this permit may be suspended for a period determined by the Department and the Permit Holder shall take those steps considered necessary in terms of NEMA to remedy any pollution caused. All waste must be placed into dedicated waste bins.

- 14.5. The Permit Holder shall not simultaneously collect any other species, or engage in the execution of any other fishing right, when undertaking commercial fishing of seaweed in terms of this permit.
- 14.6. Failure to report any contravention of the provisions of the MLRA by a Permit Holder is a criminal offence. Any contravention shall immediately be reported telephonically to the Customer Service Centre at 0860003474 and thereafter shall be faxed to (021) 402 3663, for attention: The Chief Director: Monitoring, Control and Surveillance (MCS).
- 14.7. The Department may refuse to issue a subsequent permit should these Permit Conditions not be adhered to.

15. CONSULTATION AND COMMUNICATION

- 15.1. The Department will prefer to consult and communicate with the Small-Scale Fishing cooperatives and regarding matters related to the Small-Scale seaweed fishery.
- 15.2. Communication regarding all permits and licences shall be addressed to the Department's Customer Service Centre, Ground Floor, Foretrust Building, Martin Hammerschlag Way, Foreshore, Cape Town or Private Bag X2, Vlaeberg, 8018. The Customer Service Centre may be contacted on 0860003474.
- 15.3. The Chief Director: Marine Resource Management (MRM) will consult with Permit Holders when conducting performance reviews to determine further criteria against which Permit Holders will be measured.

16. OBSERVER PROGRAMME

- 16.1. The Permit Holder shall, when requested by the Department or its agent, accommodate an Observer during the collecting or harvesting of seaweed.
- 16.2. The Observer shall if necessary be accommodated on board the vessel.
- 16.3. The Permit Holder shall allow the Observer unrestricted access to monitor fishing activity and compliance with Permit Conditions and all applicable laws.
- 16.4. Should the Department reasonably believe that an Observer is being prevented from carrying out his or her obligations in any way or threatened in any way while on board, the Department may implement proceedings under Section 28 of the MLRA.

17. PROCESSING AND SALE OF FISH

- 17.1. The Permit Holders shall adhere to the Fish Processing Establishment (FPE) Permit Conditions when processing the seaweed catch.
- 17.2. The Permit Holder shall issue a receipt to the Purchaser indicating the particulars of the Purchaser, Permit Holder, the seaweed species sold and the amount sold, date sold, and a copy of this receipt shall be kept for a period of 60 months at the registered place of business as indicated in the permit.

18. TRANSFER OF FISHING RIGHTS

- 18.1. The Small-Scale Fishing long-term commercial fishing right is not transferable.

18. TRANSPORTATION OF FISH

The Permit Holders shall adhere to the seaweed transport Permit Conditions when transporting the seaweed catch.

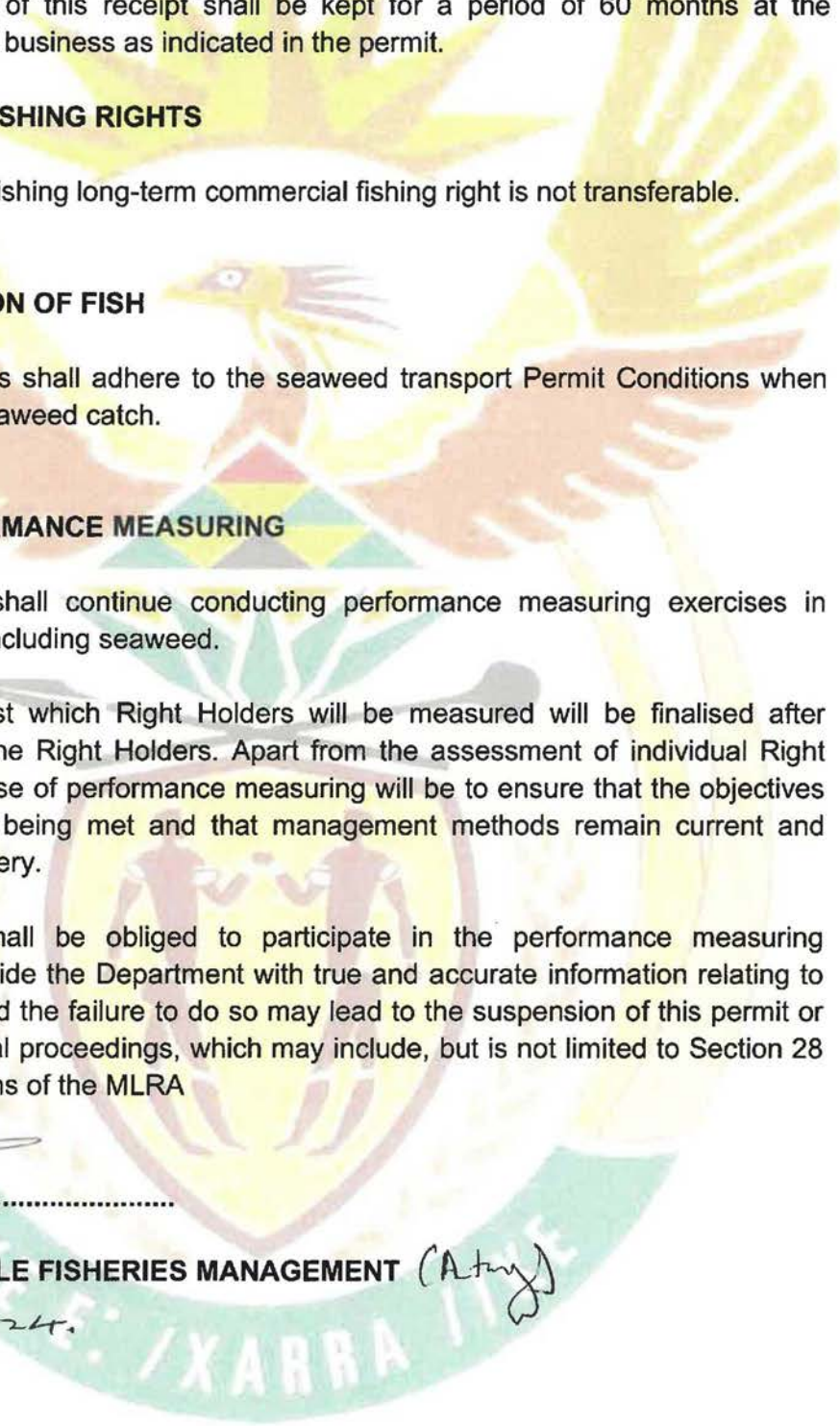
19. FISHING PERFORMANCE MEASURING

- 20.1. The Department shall continue conducting performance measuring exercises in various fisheries, including seaweed.
- 20.2. The criteria against which Right Holders will be measured will be finalised after consultation with the Right Holders. Apart from the assessment of individual Right Holders, the purpose of performance measuring will be to ensure that the objectives of the fishery are being met and that management methods remain current and suitable for the fishery.
- 20.3. Permit Holders shall be obliged to participate in the performance measuring exercises and provide the Department with true and accurate information relating to these exercises and the failure to do so may lead to the suspension of this permit or the initiation of legal proceedings, which may include, but is not limited to Section 28 proceedings in terms of the MLRA



BERNACIA MULLINS
DIRECTOR: SMALL-SCALE FISHERIES MANAGEMENT (Acting)

DATE: 12 April 2024.



APPENDIX 1: Boundaries of seaweed concession areas

Area no.	Seaweed Resource group apportioned to small-scale commercial fishing sector	Boundaries of seaweed concession areas	Harvesting method	Limits/ TAC per concession area (Whole Kelp Tonnes fresh weight)	Limit/ TAC per concession area (Fronds only tonnes fresh weight)
2	Gelidium (<i>Gelidium pristoides</i> , <i>G. abbottiorum</i> , <i>G. amansii</i> , <i>G. pteridifolium</i> ("G. cartilagineum/ <i>G. versicolor</i> ")	Cape Seal (34°01'12"S, 23°24'48"E) to Cape St Blaize (34°10'16"S, 22°05'30"E)	By hand (picking)	No limit	No limit
3	Gelidium (<i>Gelidium pristoides</i> , <i>G. abbottiorum</i> , <i>G. amansii</i> , <i>G. pteridifolium</i> ("G. cartilagineum/ <i>G. versicolor</i> ").	Cape St Blaize (34°10'16"S, 22°05'30"E) to the eastern bank of the Breede River (34°24'00"S, 20°50'00"E)	By hand (picking)	No limit	No limit
4	Gelidium (<i>Gelidium pristoides</i> , <i>G. abbottiorum</i> , <i>G. amansii</i> , <i>G. pteridifolium</i> ("G. cartilagineum/ <i>G. versicolor</i> ").	Western Bank of the Breede River (34°24'40"S, 20°50'00"E) to Cape Agulhas (34°49'40"S, 20°00'40"E)	By hand (picking)	No limit	No limit

Area no.	Seaweed Resource group apportioned to small-scale commercial fishing sector	Boundaries of seaweed concession areas	Harvesting method	Limits/ TAC per concession area (Whole Kelp Tonnes fresh weight)	Limit/ TAC per concession area (Fronds only tonnes fresh weight)
	Mixed beach-cast seaweed		Beach-cast kelp: all or any parts of beach-cast plants may be collected by hand.	No limit	No limit
5*1	Kelp (<i>Ecklonia maxima</i> and <i>Laminaria pallida</i>).	Cape Agulhas (34°49'40"S, 20°00'40"E) to the eastern bank of the Uilenkraal River (34°36'24"S, 19°24'36"E)	By hand (picking)	No limit	2625
	Mixed beach-cast seaweed (excluding kelp)		Beach-cast kelp: all or any parts of beach-cast plants may be collected by hand.	No limit	No limit
	Ulva/ Porphyra <i>Ulva</i> and <i>Porphyra</i> species		By hand (picking)	No limit	No limit
6	Ulva/ Porphyra <i>Ulva</i> and <i>Porphyra</i> species	Western Bank of the Uilenkraal River (34°36'24"S, 19°24'36"E) to the eastern bank of the Mossel River (34°24'30"S, 19°16'24"E)	By hand (picking)	No limit	No limit
8	Kelp (<i>Ecklonia maxima</i> and <i>Laminaria pallida</i>)	Western bank of the Bot River (34°22'00"S, 19°06'00"E) to Swartklip (34°04'29"S, 18°41'12"E)	By hand (picking)	2048	1024

Area no.	Seaweed Resource group apportioned to small-scale commercial fishing sector	Boundaries of seaweed concession areas	Harvesting method	Limits/ TAC per concession area (Whole Kelp Tonnes fresh weight)	Limit/ TAC per concession area (Fronds only tonnes fresh weight)
	Ulva/ Porphyra <i>Ulva</i> and <i>Porphyra</i> species		By hand (picking)	No limit	No limit
11	<i>Gracilaria</i>	North Head (Schooner Rock), Saldanha (33° 03' 05" S, 17° 54' 36" E) to the southern bank of the Berg River (32° 46' 12" S, 18° 08' 42" E).	By hand (picking)	No limit	No limit
	Ulva/ Porphyra <i>Ulva</i> and <i>Porphyra</i> species		By hand (picking)	No limit	No limit
12	Kelp <i>Ecklonia maxima</i> and <i>Laminaria pallida</i>	North Bank of the Berg River (32°46'06"S, 18°08'48"E) to the southern border of Lambert's Bay (32°06'00"S, 18°18'12"E)	By hand (picking)	50	25
	<i>Gracilaria</i>		By hand (picking)	No limit	No limit
	Ulva/ Porphyra <i>Ulva</i> and <i>Porphyra</i> species		By hand (picking)	No limit	No limit
13	Ulva/ Porphyra <i>Ulva</i> and	Groothoek Bay (31° 54' 36" S, 18° 16' 22" E) to the southern bank of the Olifant's River (31°	By hand (picking)	No limit	No limit

Area no.	Seaweed Resource group apportioned to small-scale commercial fishing sector	Boundaries of seaweed concession areas	Harvesting method	Limits/ TAC per concession area (Whole Kelp Tonnes fresh weight)	Limit/ TAC per concession area (Fronds only tonnes fresh weight)
	<i>Porphyra</i> species	42' 36" S, 18° 11' 15" E			
14	Ulva/ Porphyra <i>Ulva</i> and <i>Porphyra</i> species	Northern bank of the Olifant's River (31°42'04"S, 18°11'15"E) to the southern bank of the Groen River (30°51'00"S, 17°34'36"E)	By hand (picking)	No limit	No limit
15	Kelp (<i>Ecklonia maxima</i> and <i>Laminaria pallida</i>)	Security fence at Mitchell's Bay near the mouth of the Spoeg River (30° 27' 54" S, 17° 21' 22"E) to the angling club slipway at Kleinzee (29° 42' 48" S, 17° 03' 24" E).	By hand (picking)	2200	1100
	Ulva/ Porphyra <i>Ulva</i> and <i>Porphyra</i> species		By hand (picking)	No limit	No limit
16	Kelp (<i>Ecklonia maxima</i> and <i>Laminaria pallida</i>) Ulva/Porphyra	Northern border of the farm Oubeep south of McDougallsbaai (29°19'45"S, 16°54'38"E) to the border of the proclaimed State Alluvial Diggings just north of Port Nolloth (29°13'56"S, 16°51'15"E)	By hand (picking)	620	310
	Ulva/ Porphyra <i>Ulva</i> and <i>Porphyra</i> species		By hand (picking)	No limit	No limit

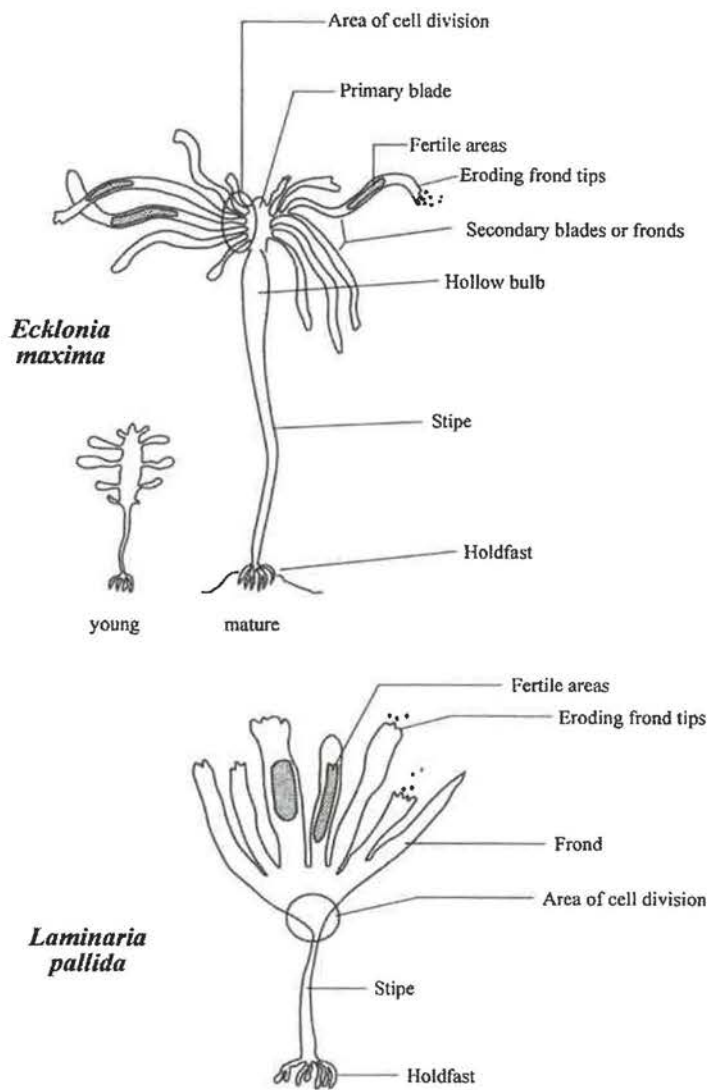
Area no.	Seaweed Resource group apportioned to small-scale commercial fishing sector	Boundaries of seaweed concession areas	Harvesting method	Limits/ TAC per concession area (Whole Kelp Tonnes fresh weight)	Limit/ TAC per concession area (Fronds only tonnes fresh weight)
17	<i>Gracilaria</i>	South Head (33°06'18"S , 17°57'18"E) to the North Head (Schooner Rock) (33°03'05"S , 17°54'36"E) of Saldanha Bay including Saldanha Bay but excluding Langebaan Lagoon.	By hand (picking)	No limit	No limit
	Beach cast-kelp		By hand (picking)	No limit	No limit
20	Gelidium <i>Gelidium pristoides</i> , <i>G. abbotiorum</i> , <i>G. amansii</i> , <i>G. pteridifolium</i> (<i>G. cartilagineum/versicolor</i>)	Kei River (32°40'28"S, 28°23'00"E) to Qora River. (32°27'00"S, 28°40'24"E)	By hand (picking)	No limit	No limit
23	Gelidium <i>Gelidium pristoides</i> , <i>G. abbotiorum</i> , <i>G. amansii</i> , <i>G. pteridifolium</i> (<i>G. cartilagineum/versicolor</i>)	Mbashe River. (32°14'54"S, 28°54'00"E) to Mnenu River. (31°48'24"S, 29°19'46"E)	By hand (picking)	No limit	No limit

APPENDIX 2: The Kelp Harvesting Manual

What is kelp?

Kelp is the name given to certain large brown seaweeds. In South Africa, the two important kelps are *Ecklonia maxima* and *Laminaria pallida* (see diagrams). They grow on the coast, wherever there is suitable rock to attach to, in the cool waters between Cape Agulhas and northern Namibia.

Ecklonia is the main kelp in the shallower water from Agulhas around Cape Columbine. Here *Laminaria* grows underneath the *Ecklonia* or in slightly deeper water, down to about 20 m depth. In the Northern Cape, *Laminaria* develops a hollow stipe (stalk) and becomes much more abundant in shallow water, although *Ecklonia* may still be locally common.



The kelp life-history

The big kelp plants we see are one stage in a complicated life-history (see Figure 2). We have illustrated the kelp life-history because it makes it easier to understand some of the discussion on the effects of different harvesting methods.

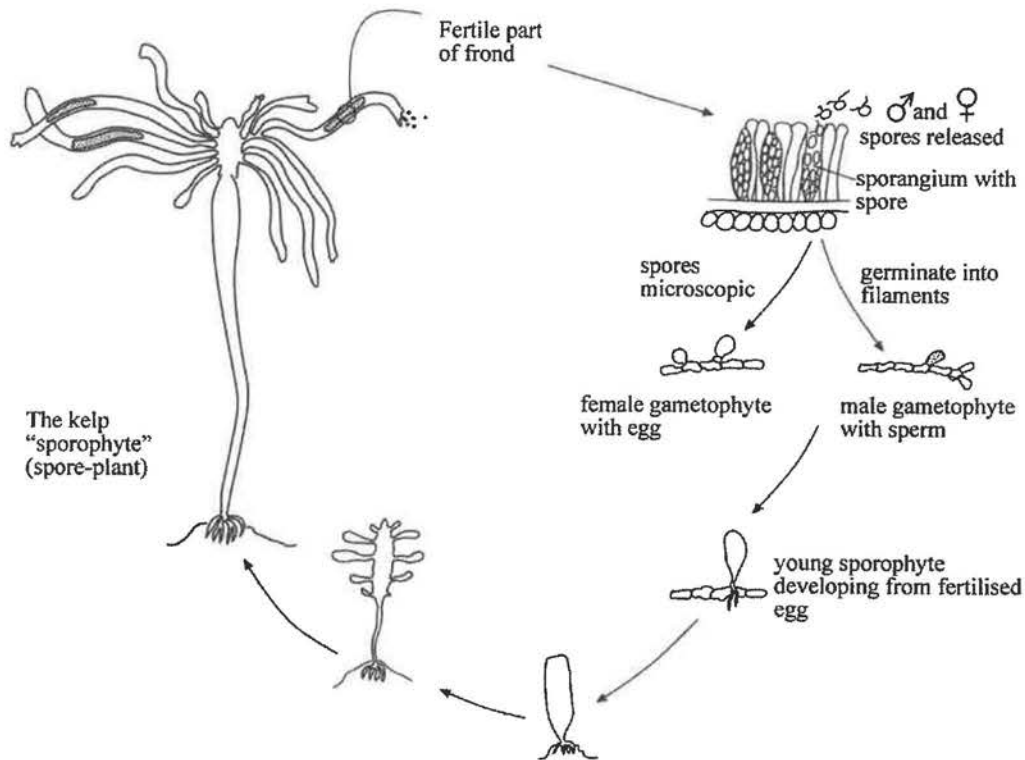


Figure 2

Figure 2 shows the stages in a kelp life history. The big kelp (sporophyte or spore-producing stage) releases microscopic spores from fertile areas on the fronds, which are visible as lighter-coloured, slightly raised patches. These spores swim in the water, and soon land on the rock where they attach and germinate. The spores are either male or female, and they grow into separate male or female plants called gametophytes (gamete, or egg and sperm-producing plants). These gametophytes are like tiny tufts of filaments, and they become fertile and produce either eggs or sperm. Once an egg is fertilised, it grows into a tiny sporophyte. The sporophytes start off as small flat blades, then they develop secondary blades or fronds, and later a long stipe that becomes hollow at the top. Above the bulb is the original primary blade, which now often has a spear-shape. The secondary blades (or fronds) grow from the sides of the primary frond. It takes a kelp sporophyte about 2 years to grow to the surface.

Kelp in the ecosystem

Kelp is by far the most abundant seaweed on our west coast shores, but there are also almost 400 other seaweed species and hundreds of species of animals that live in or around the kelp beds and many of these depend on the kelp in some way.

The kelp is **eaten directly** by many animals (herbivores) such as abalone, sea urchins, snails (e.g. alikreukel), limpets and chitons. A lot of **particulate matter** enters the water from the constantly eroding tips of the kelp fronds, and this material is an important food for filter-

feeders like mussels, sponges and red-bait. Some of these, like mussels, are an important food for rock-lobsters and some fish. Besides providing food to various animals, the kelp beds are a **vital habitat** for hundreds of species of plants and animals, providing shade, some shelter from wave-action, and homes among the fronds and large, root-like holdfasts.

It is therefore very important that we harvest kelp sustainably – that is, so that we do not damage the kelp beds or reduce our harvests in future.

Kelp Harvesting

Kelp can be harvested in various ways, depending on what part of the plant is required. The effect on the kelp plant and on the environment depends on how the plant is cut. The main distinction to be made is whether or not the plant is killed by harvesting. If it is killed we call it “whole-plant harvesting”, but if only some of the frond material is cut, and the plant is left alive, we call it “frond-only harvesting”. The following diagrams explain these two options.

Whole-plant harvesting

This refers to any type of harvesting that kills the whole kelp plant, such as cutting the stipe near its base (when stipe material is needed), or cutting the whole kelp head, from a boat (when fronds are needed for abalone feed). The holdfast, and the bit of stipe left on it, eventually rot off the rock.

The mature kelps harvested in this way are then replaced by the smaller plants that are usually growing among them, and which take about 2 years to grow to the surface. It is therefore important for the harvester not to damage or cut the small plants (those with stipes of less than 0.5 – 1 m in length), because they will form the next generation of adult plants. Of course new, small sporophytes are continuously being produced from the microscopic gametophytes, but these will take a lot longer to reach the surface.

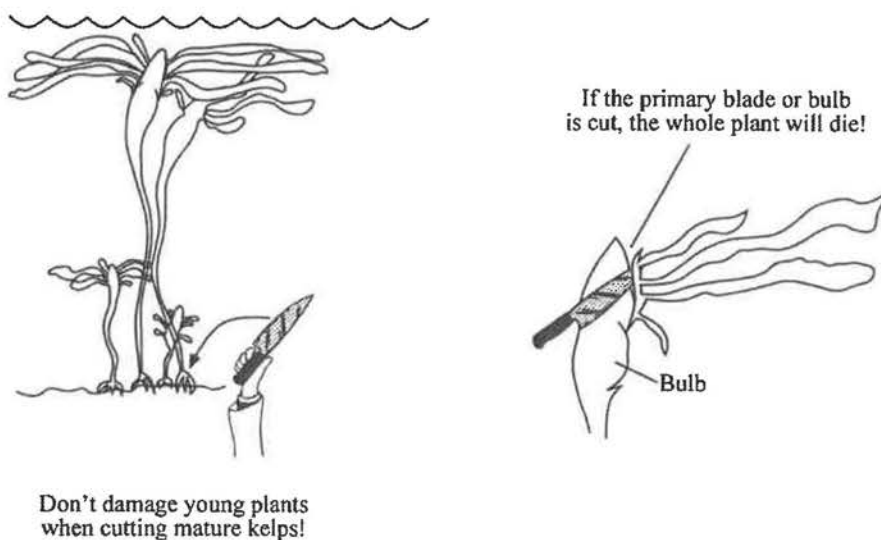
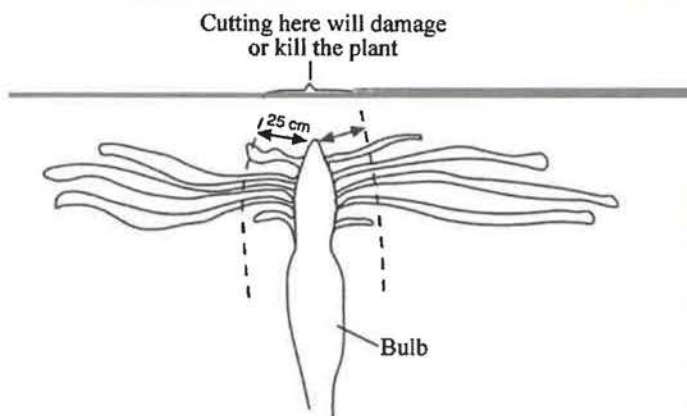


Figure 3

Harvesting of only fronds

The fronds of kelps grow like belts: the main growth region is near the base of each strap-like frond, and older fronds are continually eroding at their tips. Therefore, by cutting the fronds at least 25 cm from their base, you can obtain most of the frond material without killing the plant. The strap-like fronds continue to grow, and you can come back 6 months later and re-harvest the same plant. In this way you will get much more frond material from a given area of kelp bed, over time. If you kill a kelp plant, it takes at least 2 years for another kelp plant to replace it.

To harvest only frond material (e.g. for abalone feed), a sharp knife or sickle is used, and in the case of *Ecklonia*, the fronds must be cut about 25 centimetres from where they join the primary blade. As long as you do not damage the growing zone at the base of the frond, or the primary blade, bulb or stipe you will not kill the kelp plant. The 25cm-long stumps of the fronds will then continue to grow, and can be cut again 4-6 months later.



fronds will then continue to grow, and can be cut again 4-6 months later.

Important: If the fronds are cut **too short**, or the **primary blade is damaged** in any way (or if the bulb or stipe is damaged or cut) the plant will die, and a new kelp plant will have to grow up to replace it!

The harvesting of *Laminaria* fronds is similar, but here 30cm must be left above the point where the frond joins the top of the stipe.

For some kelp concession areas, **ONLY** Frond-Cutting is allowed (see permit conditions). In others, the harvester may use any method that is practical or convenient, given the sea conditions or end-uses of the kelp. However, in all cases where only fronds are required, we strongly recommend that kelp plants are not killed. This will allow you to get more kelp from easily accessible areas and will minimise the ecological effects of harvesting.

Table 1: Comparison between whole - plant cutting with frond - only cutting.

Cutting whole kelp plants	Cutting only fronds (plant left alive)
All fronds and stipe obtained	About 70% of frond mass obtained
Kelp plants are killed (each plant has to be replaced by a new plant).	Kelp is "trimmed" not killed
Kelp bed takes 2 years to recover.	Fronds re-grow within 6 months
Done by diver or from a boat	No diver needed – done from boat.

Yields of fronds lower (per unit area) in the long term	Yields of frond material higher (per unit area) in the long term
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For more information, please contact the Seaweed Unit at 061 4669632.



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