



## **Évaluation des Stocks de Poissons Ciblés du Lagon Nord-Ouest de la Grande Terre, Nouvelle-Calédonie**

Author: Grace, Roger

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## Appendix 4/Annexe 4

Mean percent benthic cover for reef sites surveyed in the northwest lagoon (Yandé to Koumac)

Recouvrement benthique moyen (exprimé en pourcentage) des différents sites récifaux étudiées dans le lagon Nord-ouest (Yandé à Koumac)

The number of 20m transects surveyed (n) along each 100m transect at depth (shallow < 6m, medium 6–10m and deep 12m plus), biota/substrata were categorized as: Hard Coral (HC), Soft Coral (SC), Deal Coral (DC), Sponge (SP), Macro Algae (MA), Turf Algae (TA), Calcareous Algae (CA), Rubble (RB), Sand (SD). Other category represents invertebrates such as echinoderms, tunicates, etc. Percent mean is given with standard error below in parentheses.

Le nombre (n) de tronçons de 20m examinés sur chaque transect de 100 m d'une profondeur donnée (peu profond, < 6m ; moyen, entre 6 et 10m et profond > 12 m), biotes et substrats ont été classés selon les catégories suivantes : corail dur (HC), corail mou (SC), corail mort (DC) éponge (PS), macro algues (MA), algues gazonnantes (TA), algues calcaires (CA), fonds rocheux (RB), sable (SD). La catégorie autre représente des invertébrés tels que des échinodermes, des tuniciers etc. Le pourcentage moyen est donné avec son erreur type entre parenthèses.

site	n	depth	HC	SC	DC	SP	MA	TA	CA	RB	SD	Other	Silt
1	4	medium	56.3 (10.7)	20	0	0.6 (0.6)	0	3.7 (3.0)	0.6 (0.6)	8.7 (2.6)	10 (6.8)	0	0
2	4	medium	52.5 (3.7)	0	0	5.0	0	15.6 (1.2)	5 (2.9)	8.1 (1.9)	13.7 (3.9)	0	0
3	4	medium	55 (4.0)	18.1 (4.2)	0	0	0	12.5 (2.0)	11.9 (2.6)	2.5 (2.5)	0	0	0
3	4	deep	38.8 (2.6)	8 (3.6)	0	0.6 (0.6)	0	18.1 (0.6)	6.2 (3.3)	16.9 (1.6)	10 (1.8)	1.2 (0.7)	0
6	3	medium	35.8 (6.5)	5.8 (2.2)	0	0	0	32.5 (3.8)	23.3 (6.0)	0	0.8 (0.8)	1.7 (1.7)	0
6	3	deep	46.9 (4.3)	3.7 (0.7)	0	1.2 (0.7)	0	32.5 (3.2)	6.2 (2.2)	5.6 (1.2)	3.7 (0.7)	0	0
7	4	deep	55.6 (5.0)	16.2 (4.4)	0	0	1.9 (1.2)	8.1 (2.1)	18 (5.4)	0	0	0	0
7	4	medium	61.2 (0.7)	12.5 (1.0)	0	0	0	13 (2.6)	13 (1.9)	0	0	0	0
9	3	deep	46.9 (6.2)	26.9 (5.3)	0	0	1.9 (1.2)	8.1 (3.1)	16.2 (3.3)	0	0	0	0
9	4	medium	69.4 (3.6)	8.7 (3.0)	0	0	0	0.6 (0.6)	20.6 (4.0)	0	0	0.6 (0.6)	0
10	3	deep	14.2 (3.6)	35 (7.6)	0	5 (2.9)	0	24.2 (9.6)	1.7 (1.7)	0.8 (0.8)	19.2 (0.8)	0	0
11	4	shallow	15.6 (2.1)	3.1 (1.9)	0	4.4 (1.6)	2.5 (1.8)	30 (1.8)	16 (5.8)	1.2 (0.7)	25 (7.1)	1.9 (1.2)	0
12	3	shallow	34.2 (3.6)	0	0	0	0	22 (4.6)	20.8 (0.8)	9.2 (5.8)	14.2 (1.7)	0	0
13	4	medium	15.6 (2.8)	1.9 (1.2)	0	0	52 (9.7)	8.1 (3.6)	6.2 (2.4)	0.6 (0.6)	14.4 (5.3)	1.2 (1.2)	0

Mean percent benthic cover for reef sites surveyed in the northwest lagoon (Yandé to Koumac)  
 Recouvrement benthique moyen (exprimé en pourcentage) des différents sites récifaux étudiées dans le lagon Nord-ouest (Yandé à Koumac)

site	n	depth	HC	SC	DC	SP	MA	TA	CA	RB	SD	Other	Silt
14	3	medium	34.4 (2.8)	3.1 (2.4)	0	1.9 (1.9)	0	24.4 (4.1)	3.7 (1.2)	16.9 (5.9)	15 (2.9)	0.6 (0.6)	0
16	4	medium	15.6 (1.2)	2.5 (1.0)	0	1.9 (0.6)	0.6 (0.6)	36.9 (7.6)	11.9 (6.6)	17.5 (5.9)	12.5 (5.2)	0.6 (0.6)	0
17	4	deep	34.4 (3.6)	13.7 (3.3)	0	0	0.6 (0.6)	12.5 (1.0)	30 (4.4)	8.1 (0.6)	0.6 (0.6)	0	0
17	4	medium	63.1 (6.4)	6.9 (5.2)	0	0	0	4.4 (1.2)	25 (2.7)	0	0	0.6 (0.6)	0
18	4	shallow	53.8 (4.1)	0	0	0	10 (1.0)	3.7 (2.4)	5.6 (4.1)	18.7 (7.4)	8.1 (3.1)	0	0
19	4	medium	55 (5.1)	5.6 (3.3)	0	3.7 (3.0)	6.9 (2.1)	5.6 (1.2)	1.2 (1.2)	8.7 (1.6)	12.5 (2.7)	0.6 (0.6)	0
20	4	shallow	36.9 (7.7)	2.5 (1.8)	0	0.6 (0.6)	16.9 (7.4)	12.5 (5.1)	0	15 (2.3)	13.7 (5.5)	1.8 (1.2)	0
22	4	shallow	43.1 (8.9)	5.6 (4.8)	0	0.6 (0.6)	25 (3.1)	2.5 (2.5)	0	20.6 (6.6)	2.5 (1.4)	0	0
24	4	medium	85.6 (3.9)	0	0	0	0	6.9 (1.2)	0.6 (0.6)	5.6 (3.3)	1.2 (0.7)	0	0
26	4	medium	73.8 (4.8)	5 (2.7)	0	0.6 (0.6)	2.5 (1.4)	5.6 (3.3)	0.6 (0.6)	8.1 (2.8)	3.7 (0.7)	0	0
28	4	shallow	63.8 (10.5)	1.3 (0.7)	0	0.6 (0.6)	0.6 (0.6)	21.2 (7.4)	5 (2.7)	7.5 (4.8)	0	0	0
29	4	shallow	35.6 (5.0)	2.5 (2.5)	0	1.3 (1.3)	15 (5.4)	18.7 (4.8)	5.6 (3.6)	6.2 (3.9)	15 (3.7)	0	0
30	3	medium	47.5 (7.1)	0	0	1.9 (1.2)	11.2 (6.8)	17.5 (5.1)	3.7 (1.2)	10.6 (1.2)	5.6 (1.6)	1.9 (1.2)	0
31	4	shallow	46.9 (4.8)	0	0	1.9 (0.6)	0	22.5 (5.7)	1.2 (1.2)	15.6 (5.0)	0	0	11.9 (3.7)
32	4	shallow	20 (4.2)	15.6 (4.8)	0	1.9 (1.2)	1.9 (1.2)	15.6 (2.6)	3.7 (1.6)	19.4 (3.7)	0	0	21.9 (2.9)
33	4	medium	70 (8.7)	10.6 (4.1)	0	0	0	5.6 (1.2)	3.7 (2.2)	8.7 (2.2)	1.2 (1.2)	0	0
34	4	shallow	34.4 (11.3)	0.6 (0.6)	0	0	42.5 (7.6)	1.9 (0.6)	0	3.7 (0.7)	0	7.5 (5.9)	9.4 (3.3)
35	4	medium	34.4 (7.7)	17.5 (3.9)	0	1.9 (1.2)	0	17.5 (3.5)	0	10.6 (2.1)	17.5 (6.4)	0.6 (0.6)	0
36	4	medium	56.9 (4.1)	0	0	3.7 (1.2)	0	8.1 (3.3)	2.5 (1.0)	18 (2.1)	10.6 (5.7)	0	0
37	4	medium	75 (7.4)	4.4 (3.6)	0	0	0	5.0 (2.7)	0	10.6 (2.8)	5.0 (1.8)	0	0
38	4	medium	70.6 (3.3)	0	0	3.1 (1.9)	0	5.6 (2.8)	0	8.7 (2.4)	11.2 (0.7)	0.6 (0.6)	0
40	4	shallow	13.8 (3.1)	12.5 (2.7)	0	9.4 (2.4)	0	39.4 (7.2)	11.2 (5.2)	10 (5.8)	3.1 (1.6)	0.6 (0.6)	0
41	4	medium	25.6 (2.8)	13.1 (2.9)	0	8.7 (2.6)	0	18.7 (6.9)	13.1 (8.4)	18.7 (4.6)	1.2 (0.7)	0.6 (0.6)	0
42	4	shallow	26.9 (2.4)	13.1 (5.7)	0	0	1.3 (0.7)	8.1 (4.1)	20 (3.7)	28 (2.8)	2.5 (1.4)	0	0
43	4	shallow	68.1 (8.6)	13.8 (3.6)	0	0	0	0.6 (0.6)	5.6 (1.2)	4.4 (3.6)	7.5 (7.5)	0	0
43	4	medium	81.9 (4.1)	0	0	0.6 (0.6)	0	7.5 (2.0)	1.2 (1.2)	5.6 (3.3)	2.5 (1.0)	0.6 (0.6)	0

site	n	depth	HC	SC	DC	SP	MA	TA	CA	RB	SD	Other	Silt
45	4	medium	68.1 (8.4)	0	0	0	0	8.1 (2.1)	0.6 (0.6)	16.2 (5.8)	6.9 (4.4)	0	0
47	4	shallow	51.9 (4.4)	0	1.2 (0.7)	1.3 (0.7)	0	7.5 (2.7)	4.4 (3.6)	30 (8.3)	3.7 (0.7)	0	0
48	4	shallow	47.5 (9.8)	0	0	0.6 (0.6)	0.6 (0.6)	15 (7.6)	3.1 (1.9)	28 (8.4)	5.0 (2.9)	0	0
48	4	medium	56.9 (6.4)	0	0.6 (0.6)	0	4.4 (0.6)	3.7 (2.2)	5.6 (2.1)	26.2 (7.4)	2.5 (1.8)	0	0
49	4	shallow	90.6 (3.9)	0	1.2 (0.7)	0	0	1.9 (1.2)	2.5 (1.0)	1.2 (0.7)	2.5 (1.8)	0	0
49	4	medium	67.5 (5.1)	0	0	1.2 (0.7)	0	5.6 (2.4)	1.9 (0.6)	10.6 (2.6)	12.5 (4.4)	0.6 (0.6)	0
51	4	medium	41.9 (6.8)	0	0	0	25 (7.9)	5.0 (3.4)	0.6 (0.6)	20.6 (5.3)	6.9 (2.8)	0	0
51	4	shallow	42.5 (9.6)	0	0	0	25.6 (3.7)	5.0 (1.8)	0.6 (0.6)	20.6 (6.2)	5.0 (2.3)	0.6 (0.6)	0
52	4	shallow	41.9 (3.1)	0	0.6 (0.6)	0	0	10.6 (2.4)	5.6 (2.4)	38.7 (5.3)	2.5 (1.8)	0	0
52	4	medium	16.9 (4.7)	0.6 (0.6)	0.6 (0.6)	1.2 (1.2)	0	7.5 (1.8)	3.1 (1.9)	58 (7.5)	11.9 (4.2)	0	0
56	8	shallow	43.4 (7.2)	0.9 (0.9)	1.6 (1.2)	3.4 (1.6)	0	22.2 (3.2)	3.4 (1.4)	6.2 (2.9)	0	0.6 (0.4)	18.1 (5.9)
57	4	shallow	56.9 (5.3)	0	1.9 (1.9)	1.2 (1.2)	1.2 (0.7)	14.4 (2.9)	1.2 (0.7)	2.5 (1.0)	0	0	20.6 (3.7)
58	4	medium	59.2 (5.5)	7.5 (3.8)	0	0	0	14.2 (3.0)	19.2 (2.2)	0	0	0	0
58	4	deep	54.4 (5.1)	13.7 (3.1)	0	0.6 (0.6)	0.6 (0.6)	11.2 (3.0)	18.7 (2.6)	0	0.6 (0.6)	0	0
59	4	medium	58.8 (9.8)	10 (4.3)	0	0	0	5.6 (2.1)	25.6 (7.7)	0	0	0	0
59	4	deep	48.8 (4.6)	6.2 (1.6)	0	0	0	15.6 (4.7)	28 (3.3)	0	0	1.2 (0.7)	0
60	3	medium	22.5 (5.0)	0.8 (0.8)	0	0.8 (0.8)	0	25 (8.0)	48.3 (4.6)	0	2.5 (1.4)	0	0
60	3	deep	35 (2.5)	0.8 (0.8)	0	5 (2.5)	0	38.3 (1.7)	15.8 (3.6)	0	5.0 (2.9)	0	0
61	4	shallow	53.1 (10.1)	0	0	0.6 (0.6)	0	15 (3.7)	16.9 (6.6)	0	14.4 (4.6)	0	0
62	3	shallow	25.8 (5.1)	2.5 (1.4)	0	0	0	14.2 (3.0)	32.5 (5.0)	9.2 (7.9)	15.8 (5.8)	0	0
63	4	shallow	30.6 (4.3)	18.1 (4.1)	0	5.0 (1.4)	0	6.9 (2.4)	8.1 (2.6)	10 (3.7)	21.2 (5.4)	0	0
63	4	medium	16.3 (2.4)	41.9 (9.4)	0	0.6 (0.6)	0	8.7 (3.3)	2.5 (1.4)	0.6 (0.6)	28 (5.7)	1.2 (0.7)	0
64	4	medium	16.9 (3.0)	13.1 (3.1)	0	8.1 (2.8)	0.6 (0.6)	33.7 (5.6)	22.5 (4.2)	1.2 (0.7)	0.6 (0.6)	3.1 (1.2)	0
65	4	deep	13.8 (3.3)	14.4 (1.6)	0	15.6 (2.6)	0	42.5 (9.0)	9.4 (3.6)	0	2.5 (1.0)	1.9 (1.9)	0
69	4	medium	25 (6.5)	0	0.6 (0.6)	0	0	22.5 (2.3)	2.5 (1.4)	28.1 (7.2)	21.2 (4.3)	0	0
72	4	shallow	5.6 (2.8)	0	0	0	0	2.5 (1.0)	7.5 (2.3)	0.6 (0.6)	10 (1.4)	1.9 (1.2)	0

Mean percent benthic cover for reef sites surveyed in the northwest lagoon (Yandé to Koumac)  
 Recouvrement benthique moyen (exprimé en pourcentage) des différents sites récifaux étudiés dans le lagon Nord-ouest (Yandé à Koumac)

site	n	depth	HC	SC	DC	SP	MA	TA	CA	RB	SD	Other	Silt
73	4	shallow	16.9 (3.1)	1.9 (1.9)	0	2.5 (1.8)	1.9 (1.2)	19.4 (2.8)	28.7 (3.1)	0.6 (0.6)	28.1 (3.6)	0	0
74	4	shallow	28.8 (5.5)	0	0.6 (0.6)	0	0.6 (0.6)	10.6 (3.3)	15 (2.7)	20.6 (4.8)	23.1 (3.1)	0.6 (0.6)	0
79	4	deep	33.8 (6.3)	0.6 (0.6)	0	0.6 (0.6)	2.5 (1.0)	33.1 (5.8)	23 (4.8)	5.6 (2.6)	0.6 (0.6)	0	0
79	4	medium	31.3 (4.1)	0.6 (0.6)	1.2 (1.2)	0	0	18.5 (5.8)	47.5 (8.3)	0.6 (0.6)	0	0	0
80	4	medium	62.5 (2.9)	4.4 (2.1)	0	0	0	4.4 (1.6)	28.7 (2.2)	0	0	0	0
80	4	deep	46.3 (2.2)	5.6 (1.6)	0	0	0	6.9 (1.9)	40 (1.8)	0.6 (0.6)	0.6 (0.6)	0	0
83	4	shallow	41.9 (3.4)	7.5 (4.5)	0	1.3 (0.7)	0	5.6 (1.2)	39.4 (6.5)	1.9 (1.2)	0.6 (0.6)	1.9 (0.6)	0
83	4	medium	21.9 (2.6)	6.2 (1.6)	0.6 (0.6)	3.7 (1.6)	0	20.6 (5.4)	36.2 (3.3)	3.1 (2.4)	3.7 (2.2)	3.7 (1.6)	0
84	4	shallow	47.5 (3.5)	0	0.6 (0.6)	16.2 (4.1)	0	2.5 (1.0)	23 (1.6)	8.1 (2.9)	1.9 (1.9)	0	0
84	4	medium	40 (2.7)	0	0	9.4 (1.9)	0	5.6	15 (3.9)	15 (1.8)	14.4 (3.6)	0.6 (0.6)	0
85	4	shallow	66.9 (3.7)	0	0	1.2 (0.7)	0	15 (2.0)	1.2 (0.7)	14.4 (2.6)	1.2 (1.2)	0	0
85	4	medium	56.3 (3.9)	0	0	3.1 (1.9)	0	13.7 (1.6)	1.9 (0.6)	17.5 (3.2)	7.5 (3.1)	0.6 (0.6)	0
86	4	shallow	66.9 (5.9)	2.5 (2.5)	0	2.5 (1.4)	0	10	0	15 (6.1)	0	0	3.1 (1.2)
86	4	medium	43.8 (6.5)	0	0	0	0	11.2 (3.0)	0	33.7 (9.3)	0	0	0
87	4	medium	62.5 (4.2)	0	0	1.2 (1.2)	0	4.4 (1.2)	13.1 (2.8)	13.7 (2.2)	4.4 (2.8)	0.6 (0.6)	11.2 (1.6)
87	4	deep	58.1 (5.7)	0	0	0	0	3.1 (1.6)	9.4 (2.1)	26.2 (4.8)	3.1 (1.2)	0	0