Confusion Matrix for NOAA, CCI, and Coral Core predictability of Coral Bleaching

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Table 1: Confusion Matrix for predictability of bleaching using Degree Heating Week values from CCI data

Reef	Balanced Accuracy	Accuracy	F1	Sensitivity	Specificity	Pos Pred Value	Neg Pred Value	AUC	Lower CI	Upper CI	Kappa	MCC	Detection Rate	Detection Prevalence	Prevalence
Browse Island	0.90	0.81	0.22	1.00	0.80	0.12	1.00	0.90	0.85	0.95	0.18	0.32	0.03	0.22	0.03
Cocos (Keeling) Islands	0.84	0.92	0.67	0.75	0.94	0.60	0.97	0.84	0.68	1.00	0.62	0.62	0.08	0.14	0.11
Houtman Abrolhos	0.93	0.86	0.29	1.00	0.86	0.17	1.00	0.93	0.89	0.97	0.25	0.38	0.03	0.17	0.03
Ningaloo Reef	0.58	0.87	0.17	0.25	0.90	0.13	0.95	0.58	0.41	0.74	0.11	0.12	0.01	0.10	0.06
Scott Reef	0.55	0.78	0.20	0.25	0.84	0.17	0.90	0.55	0.47	0.62	0.08	0.08	0.03	0.17	0.11

Table 2: Confusion Matrix for predictability of bleaching using Degree Heating Week values from NOAA data

Reef	Balanced Accuracy	Accuracy	F1	Sensitivity	Specificity	Pos Pred Value	Neg Pred Value	AUC	Lower CI	Upper CI	Kappa	MCC	Detection Rate	Detection Prevalence	Prevalence
Browse Island	0.82	0.66	0.15	1.00	0.65	0.08	1.00	0.82	0.76	0.88	0.10	0.23	0.03	0.38	0.03
Cocos (Keeling) Islands	0.62	0.91	0.40	0.25	1.00	1.00	0.90	0.62	0.46	0.79	0.37	0.48	0.03	0.03	0.12
Houtman Abrolhos	0.93	0.86	0.31	1.00	0.85	0.18	1.00	0.93	0.88	0.97	0.27	0.39	0.03	0.17	0.03
Ningaloo Reef	0.58	0.86	0.18	0.25	0.90	0.14	0.95	0.58	0.41	0.74	0.11	0.12	0.02	0.11	0.06
Scott Reef	0.73	0.72	0.40	0.75	0.71	0.27	0.95	0.73	0.65	0.81	0.26	0.32	0.09	0.35	0.12

Table 3: Confusion Matrix for predictability of bleaching using Degree Heating Months values from CCI data

Reef	Balanced Accuracy	Accuracy	F1	Sensitivity	Specificity	Pos Pred Value	Neg Pred Value	AUC	Lower CI	Upper CI	Kappa	MCC	Detection Rate	Detection Prevalence	Prevalence
Browse Island	0.83	0.67	0.14	1.00	0.66	0.08	1.00	0.83	0.77	0.88	0.10	0.22	0.03	0.36	0.03
Cocos (Keeling) Islands	0.73	0.72	0.38	0.75	0.72	0.25	0.96	0.73	0.56	0.90	0.25	0.31	0.08	0.33	0.11
Houtman Abrolhos	0.87	0.75	0.18	1.00	0.74	0.10	1.00	0.87	0.82	0.92	0.14	0.27	0.03	0.28	0.03
Ningaloo Reef	0.72	0.82	0.27	0.60	0.84	0.18	0.97	0.72	0.56	0.88	0.20	0.25	0.03	0.19	0.06
Scott Reef	0.62	0.72	0.29	0.50	0.75	0.20	0.92	0.62	0.54	0.71	0.15	0.18	0.06	0.28	0.11

Table 4: Confusion Matrix for predictability of bleaching using Degree Heating Months values from NOAA data

Reef	Balanced Accuracy	Accuracy	F1	Sensitivity	Specificity	Pos Pred Value	Neg Pred Value	AUC	Lower CI	Upper CI	Kappa	MCC	Detection Rate	Detection Prevalence	Prevalence
Browse Island	0.76	0.53	0.12	1.00	0.52	0.06	1.00	0.76	0.70	0.82	0.06	0.18	0.03	0.50	0.03
Cocos (Keeling) Islands	0.71	0.88	0.50	0.50	0.93	0.50	0.93	0.71	0.53	0.90	0.43	0.43	0.06	0.12	0.12
Houtman Abrolhos	0.90	0.81	0.25	1.00	0.81	0.14	1.00	0.90	0.85	0.95	0.21	0.34	0.03	0.22	0.03
Ningaloo Reef	0.69	0.86	0.31	0.50	0.89	0.23	0.96	0.69	0.53	0.86	0.25	0.27	0.03	0.14	0.06
Scott Reef	0.69	0.64	0.34	0.75	0.63	0.22	0.95	0.69	0.61	0.77	0.19	0.25	0.09	0.42	0.12

Table 5: Confusion Matrix for predictability of bleaching using Degree Heating Months values from Coral Core CCI data

Reef	Balanced Accuracy	Accuracy	F1	Sensitivity	Specificity	Pos Pred Value	Neg Pred Value	AUC	Lower CI	Upper CI	Kappa	MCC	Detection Rate	Detection Prevalence	Prevalence
Cocos (Keeling) Islands	0.53	0.56	0.15	0.5	0.57	0.09	0.93	0.53	0.03	1	0.02	0.04	0.04	0.44	0.08

Table 6: Confusion Matrix for predictability of bleaching using Degree Heating Months values from Coral Core NOAA data

Reef	Balanced Accuracy	Accuracy	F1	Sensitivity	Specificity	Pos Pred Value	Neg Pred Value	AUC	Lower CI	Upper CI	Kappa	MCC	Detection Rate	Detection Prevalence	Prevalence
Cocos (Keeling) Islands	0.53	0.56	0.15	0.5	0.57	0.09	0.93	0.53	0.03	1	0.02	0.04	0.04	0.44	0.08

Table 7: Degree Heating Week Confusion Matrix

	CCI DHW				NOAA DHW			
Reef	Balanced Accuracy	Sensitivity	Specificity	AUC	Balanced Accuracy	Sensitivity	Specificity	AUC
Browse Island	0.90	1.00	0.80	0.90	0.82	1.00	0.65	0.82
Cocos (Keeling) Islands	0.84	0.75	0.94	0.84	0.62	0.25	1.00	0.62
Houtman Abrolhos	0.93	1.00	0.86	0.93	0.93	1.00	0.85	0.93
Ningaloo Reef	0.58	0.25	0.90	0.58	0.58	0.25	0.90	0.58
Scott Reef	0.55	0.25	0.84	0.55	0.73	0.75	0.71	0.73

Table 8: Degree Heating Month Confusion Matrix

	CCI DHM				NOAA DHM			
Reef	Balanced Accuracy	Sensitivity	Specificity	AUC	Balanced Accuracy	Sensitivity	Specificity	AUC
Browse Island	0.83	1.00	0.66	0.83	0.76	1.00	0.52	0.76
Cocos (Keeling) Islands	0.73	0.75	0.72	0.73	0.71	0.50	0.93	0.71
Houtman Abrolhos	0.87	1.00	0.74	0.87	0.90	1.00	0.81	0.90
Ningaloo Reef	0.72	0.60	0.84	0.72	0.69	0.50	0.89	0.69
Scott Reef	0.62	0.50	0.75	0.62	0.69	0.75	0.63	0.69

Table 9: Degree Heating Month Confusion Matrix for Coral Core

	CCore CCI DHM				CCore NOAA DHM			
Reef	Balanced Accuracy	Sensitivity	Specificity	AUC	Balanced Accuracy	Sensitivity	Specificity	AUC
Cocos (Keeling) Islands	0.53	0.5	0.57	0.53	0.53	0.5	0.57	0.53