

Expert Reviewer: GRAY

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						** If you are cutting and pasting comments from another application into the review form, please DOUBLE-CLICK in the appropriate spreadsheet comment cell before pasting your comment. Only ONE comment per row, please. **
1	7	3	1	3	1	Once again state your policy on confidence limits. Is it one stadard deveiation or two?. I strongly suspect it is only one. It is universal scientific practice to give two standard deviations, for 95% confidence. I propose to double the figures you give unless you can assure us that they are 95% confidence already
2	7	3	26	3	26	Replace "0.42±0.07" with "0.42±0.14" to give 95% confidence
3	7	3	27	3	27	Replace "0.37±0.07" with "0.37±0.14" to give 95% confidence
4	7	3	35	3	35	Replace "-0.2±0.7" with "-0.2±1.4" to give 95% confidence
5	7	3	35	3	35	Replace "1.4±0.7" with "-1.4±1.4" to give 95% confidence
6	7	3	35	3	35	Replace "0.7±0.7" with "0.7±1.4" to give 95% confidence
7	7	3	38	3	38	Add at end "possibly"
8	7	3	39	3	42	Delete from "After" in line 39 to Years" in line 42" This is sheer nonsense. Both the atmosphere and the ocean are continually evolving. There is no possibility that either of them could EVER "equilibrate"
9	7	3	39	3	42	Replace "equilibrates" with "were to equilibrate". It could NEVER "equilibrate". What nonsense!
10	7	3	43	3	43	Add at beginning "Rough calculations indicate that"
11	7	3	43	3	43	Replace "has" by "may have"
12	7	3	43	3	43	Insert after "lowered the" "average"
13	7	3	43	3	43	Insert after "by" "approximately"
14	7	3	43	3	43	The present statement is obviously untrue. The ides of pH arose from the discovery by Svante Arrhenius of ionisation in 1887. There is therefore no possible knowledge of the pH of the oceans in 1750. Also modern measurements are not sufficiently extensive to provide a meaningful average. The variability is so great that there will be evolutionarily favoured regions, and evolution of corals etc which develop ability to prosper in slightly more acid regions. In total the fact that more carbon is going into the ocean means a greater proliferation of marine life, not less.
15	7	3	44	3	44	Insert after "by" "some"
16	7	3	44	3	44	Insert afetr "organisms" "the evolution of others which prosper in a slightly more acid environment"
17	7	3	45	3	45	Insert after "of" "some"
18	7	3	45	3	45	Delete "The net effect is unknown" This makes a change. You ususally prophesy disaster!
19	7	3	46	3	46	Delete ."climate change will increase"
20	7	3	47	3	47	Insert after "atmosphere" "will increase"
21	7	3	49	3	49	Add at end ".if you are capable of believing it" You mean you CAN believe it!!!
22	7	3	54	3	54	Replace "is dominated by" by "has natural and"
23	7	3	55	3	55	Replace "slow down in growth rate" by "constant value and likely future fall"
24	7	4	3	4	3	Add at end "so the models are wrong"

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25	7	4	12	4	12	Insert at the beginning "In the future"
26	7	4	12	4	12	Replace "climate change is expected to cause a" by "there may be"
27	7	9	20	9	20	Delete "balance" The system is always, and inevitably "unbalanced"
28	7	9	21	9	21	Replace "balance" by "interaction"
29	7	9	24	9	24	Replace "balance" by "interaction"
30	7	9	29	9	29	Replace "balance" by "interaction"
31	7	9	31	9	31	Replace "balance" by "interaction"
32	7	16	46	16	46	Add at end. "It should always be remembered that intercomparison exercises may sometimes standardise commen biases"
33	7	17	8	17	8	Add at end. "It should always be remembered that intercomparison exercises may sometimes standardise commen biases"
34	7	20	51	20	51	Once more we only have three points on a graph, so we are unable to determine whether there are any "trends". The inability to provide figures at a smaller interval than a "decade" is a major source of uncertainty
35	7	20	51	20	51	As usual, you must double all the confidence intervals in this Table to give the univdrally acceptable 95% confidence limits
36	7	21	34	21	34	Replace "6.4±0.4" with "6.4±0.8" to give 95% confidence limits
37	7	21	35	21	35	Replace "7.0±0.3" with "7.0±0.6" to give 95% confidence limits
38	7	21	37	21	37	Insert before "error" "95% confidence"
39	7	21	38	21	38	Replace "5%" by "10%"
40	7	21	38	21	38	Replace "5.4±0.3" with "5.4±0.6" to give 95% confidence limits
41	7	21	38	21	38	Replace ".4±0.4" with "6.4±0.8" to give 95% confidence limits
42	7	26	9	26	9	Delete "Robust"
43	7	26	30	26	30	Delete "Robust"
44	7	26	48	26	48	Delete "than normal" How do you know what is "normal?"
45	7	27	35	27	35	Delete "robustly"
46	7	28	2	28	2	Delete "anomalously" You do not know what is "anomalous."
47	7	28	18	28	18	Delete "notably"
48	7	33	31	33	31	Replacxe "Why is": by "If"
49	7	33	31	33	31	Insert "is" after "seawater"
50	7	33	31	33	31	Delete "large amounts of"
51	7	33	31	33	31	Replace "and" by "is it"
52	7	33	54	33	54	Insert at beginning "average"
53	7	34	16	34	16	Replace "may be severe" by "are to be expected"

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54	7	34	17	34	17	Insert after "corals" "so that more acid-resistant varieties and species will be favoured"
55	7	34	18	34	18	Replace "cause difficulties" with "encourage evolutionary change"
56	7	34	20	34	20	Insert after "has" "Been calculated to have"
57	7	34	21	34	21	Insert after "concentration)" ", but with considerable variability"
58	7	34	21	34	21	Replace from "may lead" to "is" with "could reach the levels"
59	7	34	28	34	28	Replace "in particular" with "without evolutionary adaptation"
60	7	34	28	34	28	Insert "and" before "for"
61	7	34	29	34	230	Delete "It is important to state that" Why?
62	7	34	30	34	30	Delete from "not perse" to "but a"
63	7	34	31	34	33	Replace from "which are themselves" on line 31 to "content" on line 33 with "rather than other aspects of the climate"
64	7	35	13	35	13	Replace "118±19" with "118±38" to give 95% confidence limits
65	7	37	45	37	45	Delete "Robust"
66	7	43	14	43	14	Insert after "include" "wetlands"
67	7	43	57	43	57	Insert after "such as" "forests"
68	7	44	31	44	31	Replace "change" by "decline"
69	7	44	33	44	33	Insert after "emissions: "such as the widespread draining of wetlands"
70	7	44	39	44	39	Replace "consensus" with "agreement"
71	7	47	9	47	9	Delete "exponentially"
72	7	48	35	48	35	Delete "exponentially"
73	7	49	15	49	15	Delete "exponential"
74	7	53	6	53	6	Replace "Climate change" with "Change of climate"
75	7	53	7	53	7	Replace "climate change" with "change of climate"
76	7	53	16	53	15	Replace "climate change" with "change of climate"
77	7	53	25	53	25	Replace "climate change" with "change of climate"
78	7	53	41	53	41	Replace "Climate change" with "Change of climate"
79	7	55	18	55	18	Replace "climate change" with "change of climate"
80	7	55	22	55	22	Replace "climate change" with "change of climate"
81	7	117	2	117	2	Insert "Mainly" after "Era"
82	7	117	4	117	4	Insert after "are" "mainly"
83	7	117	9	117	9	Replace "more than half" by "a substantial proportion". The text has differing opinions
84	7	117	16	117	15	Replace "natural" by "pre-human"
85	7	117	22	117	22	Delete "Natural"

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86	7	117	24	117	24	Replace " exchanges are in balance with "exchange"
87	7	117	25	117	35	Delete ".numbers"
88	7	117	26	117	27	Delete from "thus" on lone 26 to "time" on line 27. The statement is redundant
89	7	117	29	117	29	Insert "mostly' after "has"
90	7	117	30	117	30	Insert "techniques and measurements" after "These"
91	7	117	49	117	49	Replace "more than half" by "much". The text has divergent views
92	7	117	50	117	50	Insert after "includes" "forests"
93	7	120		120		There should be a Table of Emissions from the various fossil fuels and cement, both global, and for various countries.