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## 21st Century Cassandras in an Era of Climate Change Denial\*

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Cassandra was blessed with the gift of prophecy by Apollo. However, she shunned Apollo's romantic advances, and he added a twist to her gift. Cassandra was doomed to tell the truth, but never to be believed (Fitton 1998). Scientists are not prophets but do make statements and predications based on the preponderance of evidence.

Krugman (2009) comments on the present day situation: "These days, dire warnings aren't the delusional raving of cranks. They're what come out of the most widely respected climate models, devised by the leading researchers. The prognosis for the planet has gotten much, much worse in just the last few years. . . . In a rational world, then, the looming climate disaster would be our dominant political and policy concern. But it manifestly isn't. Why not?"

Most individuals who carry out research on troublesome problems have been called a Cassandra. In much older times, the emperor, king, or chieftain had the bearer of bad news beheaded – but, the bad news did not disappear. Every academic institution has at least one Dr. Doom. Better yet, they are not beheaded or even injured. A common reaction to bad news is "Let me know when you have good news!" Obviously the best way to make good news is to do something about the bad news. "Why don't you scientists do something about global heating?" is becoming an increasingly common question.

Deniers of the global heating are encouraged to persist in their position by a constant barrage of misinformation, counter arguments, and, sometimes, falsehoods. The news media have not been helpful. All too often, the preponderance of evidence is on one side (plus data) and a handful of deniers (with questionable or no data) are on the other. However, the public gets the impression that no scientific consensus is possible and even that scientists are confused. Lawson (2009) comments on one writer who used religious arguments against Darwin's theory of evolution: "The validity of any scientific theory can only be established by scientific methods." The proper place to assess scientific theory is in peer-reviewed, scientific journals.

Of particular concern is that global warming is speeding up (Associated Press 2009), but public understanding of the problem is not keeping pace. Humankind did not even keep pace when things were moving much more slowly. Had it done so, one hopes that more effective, direct remedial action would have been initiated (e.g., marked reduction of anthropogenic greenhouse gas emissions).

If humankind wishes to keep Earth's climate hospitable, it would be wise to pay attention to the "Cassandras" who are using evidence.

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