Smokers Respond to Pictorial Health Warnings

IN THE NEWS & ANALYSIS STORY “ANTISMOKING DRIVE TRIES CIGARETTE ads, in reverse” (S. Reardon, 1 July, p. 23), social psychologist Carol Tavris expressed doubts about the effectiveness of pictorial health warnings on tobacco packaging. However, there is extensive evidence supporting the effectiveness of this strategy (1). Survey results show that whether a smoker notices the warnings and how he or she reacts to them are consistent prospective predictors of making quit attempts (2). Studies also report increased use of telephone-based smoking cessation (quit-line) services in response to the introduction of such pictorial warnings in Australia (3), Brazil (4), and New Zealand [short term (5) and longer term (6)]. Similar responses have been reported when new text-based health warnings, which also featured a quitline number, were introduced in the Netherlands (7) and the United Kingdom (8). There is little doubt that pictorial health warnings are effective, but there is still a need for ongoing research to identify the most effective images and wording in different countries and the optimal frequency at which pictures should be replaced with new images. Research should also explore cost-effectiveness, which is likely to be high.

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Restoring Tigers to the Caspian Region

EFFORTS TO SAVE TIGERS IN THEIR NATIVE habitat are faring badly (1–3). Although counts of living tigers have been contested (e.g., “Counting India’s wild tigers reliably,” K. U. Karanth et al., Letters, 13 May, p. 791), it is clear that four of nine recognized tiger subspecies are extinct, and the census of wild tigers has plummeted from 100,000 a century ago to less than 3500 today. At the November 2010 Tiger Summit in St. Petersburg, 13 Tiger Range States pledged to reverse the extinction process and set a goal of doubling wild tiger numbers by 2022, the next Chinese Year of the Tiger (4).

Despite intense interest, resolve, expertise, and expenditure in the realm of millions of U.S. dollars, traditional conservation approaches are proving insufficient. It is time to consider new approaches.

One provocative proposal is to reintroduce tigers into selected habitat within the historic range of the now-extinct Caspian tigers (5). Tigers disappeared from the region 40 years ago, but detailed ecological assessments have identified over one million square kilometers of potentially suitable habitat in a Caspian region as large as the continental United States (2, 6). Recent genetic analyses found the difference between the living Amur tigers and the extinct Caspians to be negligible (7). There are 500 genetically healthy Amur-Caspian tigers in managed zoo collections and up to a few thousand more among the roughly 15,000 captive generic tigers—i.e., those with unknown subspecies ancestry—worldwide (8, 9). These tigers can be a source for reintroduction once they are sufficiently acclimated and the habitats in question have been appropriately prepared (preparation may include fostering natural habitats, boosting the prey base, supporting antipoaching law enforcement, relocating human settlements, and stabilizing freshwater resources).

Specialists from the 13 current Tiger Range States alongside the 12 central Asian countries where Caspian tigers roamed a generation ago, particularly the Republic of Kazakhstan, should evaluate the prospects for identifying suitable habitat and planned reintroduction in the Caspian areas (5). In March 2011, the Prime Minister of Kazakhstan pledged government support and funds for preparation of territories of future release (7). The tiger is an apex predator; the entire habitat is affected by its absence. We suggest restoring former landscapes to be as biologically full, diverse, productive, and interesting as they once were.

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Battery Vehicles Reduce CO₂ Emissions

R. F. SERVICE’S “BATTERY FAQS” (NEWS FOCUS, 24 June, p. 1495) attempts to answer the question “How will widespread adoption of electric vehicles affect CO₂ emissions and possible climate change?” The answer Service provides—that CO₂ emissions will not be affected unless renewable energy sources generate the electricity that powers the cars—is inaccurate.

Even in the U.S. mid-Atlantic region, with a large percentage of electric power generated by coal, switching 10% of the fleet from gasoline vehicles to electric would cause the net CO₂ emissions (including emissions from power generation) per switched vehicle to drop by about 5%; in less coal-heavy New York state, net CO₂ emissions per switched vehicle would drop by about 12% (1). The decrease would occur because an electric motor is more efficient than an internal combustion engine (2) and because the electric vehicle recycles some of its energy by using regenerative braking.

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References


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News Focus: “Possible sighting of dark matter fires up search and tempers” by Y. Bhattacharjee (3 June, p. 1144).

The story referred to the site of the CoGeNT experiment as an “abandoned mine.” To clarify, mining is no longer conducted at the site but it is still in active use as a science park and underground lab.

Perspectives: “Revealing the gamma-ray jet in a black hole binary” by M. J. Hardcastle (22 April, p. 429). Due to an editorial error, the first sentence of the second paragraph misstated the distance between the binary pair and the distance from Earth. The sentence should read, “Cygnus X-1 is a binary pair formed of a massive star (~20 times the mass of the Sun) and a black hole approximately 30 times the mass of the Sun (6), separated by about 0.2 astronomical units and located about 6000 light years from Earth (“).”

Letters to the Editor

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