Distrust of climate science due to lack of media literacy: researcher

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(PhysOrg.com) -- Though most climate science studies show evidence that climate change is real, the public persists in distrusting the science.

That's because of the doubt planted by climate change skeptics in the media and a lack of "media literacy education," asserts Caren Cooper, a research associate who works on citizen science projects at the Cornell Lab of Ornithology, in a Forum article in the March issue of *BioScience* magazine.

Evidence shows that media literacy education would help the public critique media messages and better assess the truth behind them, Cooper says.

"To be climate change literate, the public must first be media literate," since print, TV and radio reports and opinion pieces are the main ways that the public gets its information about climate change science, Cooper says.

Previous research demonstrates that informal science education in the United States has not emphasized critical thinking, she said. It mostly offers one-way communication from researchers or educators to the public and assumes that the public operates from a deficit of information that needs to be filled, Cooper says, citing studies in the field of communication theory.

Furthermore, a small number of climate change deniers (who are often

linked to corporations and the fossil fuel industry, she says) have exploited this model by encouraging partisanship; framing climate change as an insignificant problem; and disseminating scientifically inaccurate "educational" messages, according to the paper.

Research shows that laypeople and the media tend to view all scientific viewpoints as equally valid and, therefore, give too much credence to the minority viewpoint of skeptical scientists. As a result, they may frame global warming as scientifically controversial, when it is only politically controversial, she said. The number of scientists who support action to address climate change far outweigh researchers who oppose such action, Cooper says.

Climate skeptics have also effectively used multiple media formats, including the print press, television punditry, talk radio, magazines, journals, blogs and columns, to create doubt and a disparity between mainstream science and public policy, Cooper writes, citing previous research.

The solution? Cooper draws on a new approach emerging in the field of science communication that engages the public in activities and dialogues that interpret scientific knowledge. Citizen science, where the public actively collects scientific data, offers one such example.

Cooper also points to research that suggests that science educators should embrace media literacy education, so when faced with new information, members of the public will ask such questions as "who made this message?"; "why was it made?"; "who paid for it?" The public might also be taught to question the content in a message, ask what information has been omitted and question the credibility of the information as fact or simply opinion.

In addition, studies have shown that educators would be more effective

if they expanded their modes of communication beyond science centers and museums to radio, television, movies and blogs, Cooper adds.

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