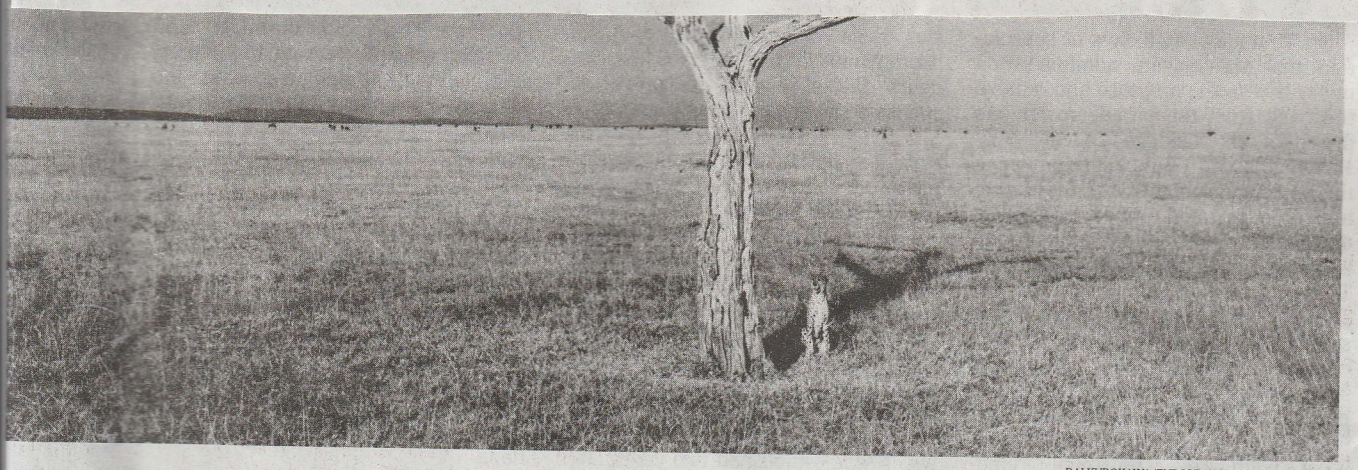
SCIENCE LAB



DAI KUROKAWA/EUROPEAN PRESSPHOTO AGENCY

eetahs face outsize threats

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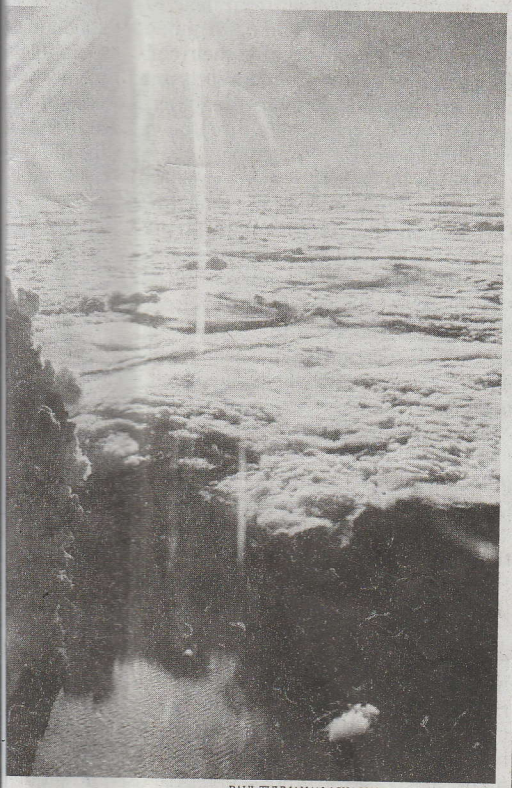
wide, had been underestimated because of a focus on groups of the cats living in protected areas like parks and refuges. The team called for the International Union for Conservation of Nature to change the cheetah's status from vulnerable to endangered, indicating the danger for the species.

The Wildlife Conservation Society, the Zoological Society of London and Panthera led the study. Sarah M. Durant, a conservation scientist affiliated with the wildlife and zoological societies, and the lead author of the report, says the heart of the problem is that three-quarters of the territory where the cats live in Africa and Asia is unprotected. In those areas, the cheetahs suffer from loss of habitat, the animals they prey on are often hunted for bushmeat, and young cats are captured for sale as pets.

The possibility of precipitous decline in those areas is clear, Dr. Durant said. The report cites the case of Zimbabwe, which lost 85 percent of its cheetahs from 1999 to 2015. The number of cats dropped to no more than 170 from about 1,200.

JAMES GORMAN



PAUL TUVMAN/ALASKA VOLCANO OBSERVATORY

POP, POP, FIZZ

The burst of bubbles decoded

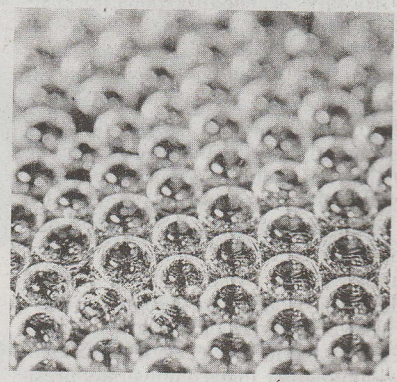
A cork pops. The sudden change in pressure in the bottle releases carbon dioxide. Bubbles form. Once in a glass, a million of them cling to its edges before rising to the top and bursting. The explosions release tiny droplets that dart across your tongue.

This may be how you welcomed 2017.

In an issue of the European Physical Journal Special Topics released this month, researchers follow carbon dioxide from where it first forms in harvested grapes until it bursts in your Champagne glass.

Thomas Séon, a physicist at Pierre and Marie Curie University in France, and his colleagues found that each bubble's spray has droplets full of intense aromas and flavors. An aroma can vary, depending on bubbling speed, a single bubble's size, temperature of the liquid and even the shape of the glass. While some believe tiny bubbles flowing constantly improve the taste, researchers say big bubbles actually release more aromatic spray.

JOANNA KLEIN



GÉRARD LIGER-BELAIR

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