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## **Elephants don't get drunk**

### *The myth of drunken elephant is busted*

"A herd of elephants that got drunk on rice beer has run amok in a village in Assam in India and killed four people." That's how a BBC news bulletin sounded few years ago. The locals claimed the elephants had developed a preference for rice beer (sake). Another theory, popular in Africa, is that elephants get drunk eating fermented marula fruits that have been rotting on the ground for some time. One can read such stories in virtually all African tourist brochures, and they go back in time for more than 150 years as travelers' stories reporting Zulu accounts. The marula fruits, that resemble the mangos, are indeed used for making beer, wine, and a type of liqueur called Amarula. Some incredulous scientists from Bristol University in England, led by Steve Morris, decided to study the issue in more detail. Firstly, by observing the elephants, the scientists remarked that they are reluctant of eating fruits from the ground. Even when there are fruits on the ground the elephants pushed each other trying to get the fruits directly from the trees. Secondly, it seems that the elephants, as well as other animals such as monkeys and birds, love the marula fruits too much to let them rot on the ground for so long that they start fermenting. Another theory was that the fruits are fermenting inside the elephants' stomach, but Morris study shows that the fruits simply don't stay there long enough for having time to ferment. Moreover, the sugars are one of the first metabolized substances and they are turned into fats before having time to transform into alcohol. Thus, it seems virtually impossible for an African elephant to get drunk by eating marula fruits. What about the Asian elephants which are assumed to drink rice beer? Although the study doesn't cover the Asian elephants (which are slightly smaller than African ones), the researchers mention how much pure ethanol an elephant should drink to get tipsy: around 2 liters. But how much sake should one elephant drink to get drunk? Sake has around 20% alcohol, thus one should drink around 10 liters. This is quite a large quantity even for an elephant! Especially that for him to get drunk he should ingest the entire quantity all at once. Otherwise its effects would wear off as quickly as the alcohol was metabolized. Therefore, it seems that the myth of the Asian drunken elephant is also busted.