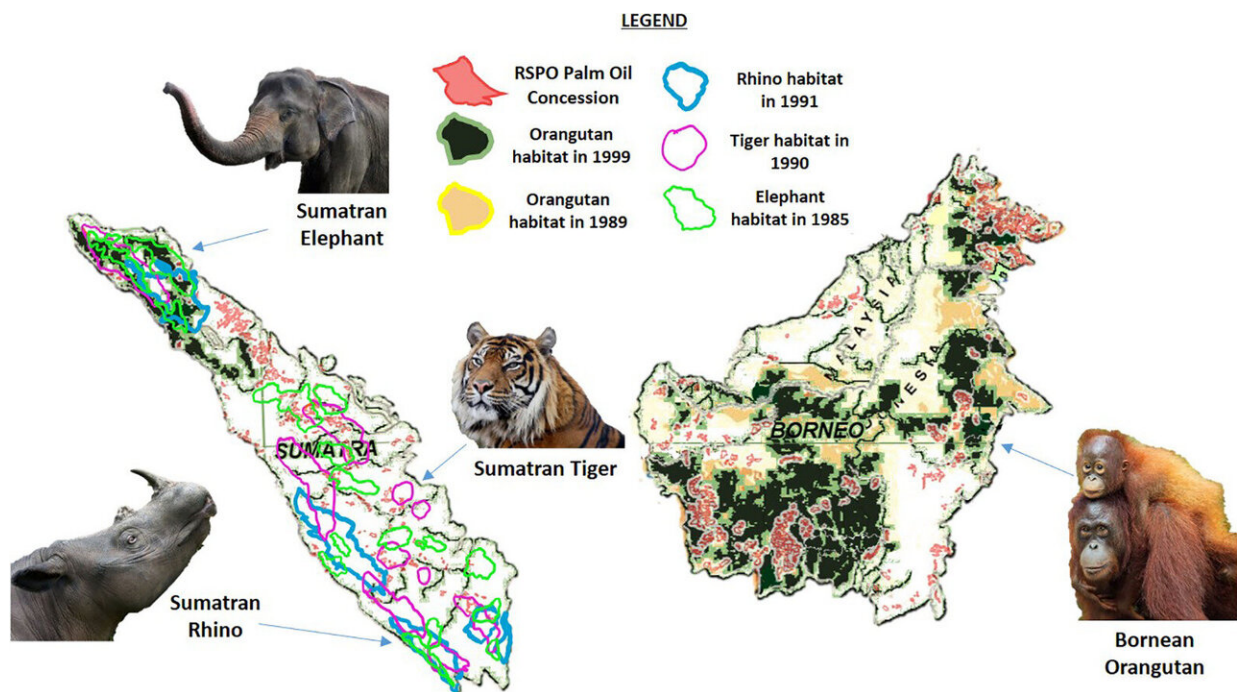


Certified 'sustainable' palm oil fields endanger mammal habitats and biodiverse tropical forests over 30 years

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Global concern has risen around the "sustainability" of palm oil in terms of global exportation and the impact on the environment in recent years. Therefore, in 2004, stakeholders from palm oil industry sectors including oil palm producers, retailers, banks, investors, nature

conservation and developmental NGOs, established the Roundtable on Sustainable Palm Oil (RSPO) with "the objective of promoting the growth and use of sustainable oil palm products through credible global standards and engagement of stakeholders."

Some studies claimed that certification significantly reduced deforestation in plantations of RSPO members, but further analyses suggest that certified palm oil is not as sustainable as previously believed. This is because deforestation was usually evaluated in certified plantations that already contained little remaining [forest](#) at the beginning of the studies.

A new study just published in the journal *Science of the Total Environment*, titled "Certified 'sustainable' palm oil took the place of endangered Bornean and Sumatran large mammals [habitat](#) and tropical forests in the last 30 years," conducted by Prof. Roberto Cazzolla Gatti, associate professor at the Tomsk State University in Russia and research fellow at the Konrad Lorenz Institute for Evolution and Cognition Research in Austria, and Russian biologist Alena Velichevskaya, showed via a highly detailed analysis of satellite images that certified oil palm concessions and supply bases replaced the habitats of endangered mammals and biodiverse tropical forests of Sumatra and Borneo over the last few decades.

"In our previous study of 2019, we suggested that certified concessions do not differ much from non-certified ones. We used preliminary data of forest cover loss from 2001 to 2016 and found that certified palm oil production cannot be completely deforestation-free. This time, we further increased the detail of our research, enlarging the time series to the last 36 years and adopting a direct analysis of high-resolution satellite images to evaluate the impact of oil palm expansion on endangered mammals' habitat and tropical forests of Sumatra and Borneo," the authors write.

Tropical forests of Southeast Asia are inhabited by endangered orangutans, rhinos, tigers, and elephants, and threatened by deforestation, including that caused by oil palm expansion. This new study, from a remotely sensed time series and imagery analysis (1984-2020), found that most of the currently certified grower supply bases and concessions in Sumatra and Borneo are located in large mammal habitats of the 1990s and in areas that were biodiverse tropical forests less than 30 years ago.

The authors write, "We suggest that the phrase '[sustainable palm oil](#)' must no longer be used to greenwash this tropical product's reputation, because it cannot certify that the production of palm oil comes from a non-recent degradation of tropical forests and endangered species habitats. In fact, we discovered that the current certified palm oil demand is almost fully supplied by those bases and concessions that, in less than three decades, replaced some of the most diverse tropical forests of the world and habitats of big mammals threatened by extinction."

The new evidence from this study proved that certification schemes assert "sustainable" production of palm oil by neglecting a very recent past of deforestation and habitat degradation. In fact, Cazzolla Gatti and Velichevskaya estimated that in Borneo and Sumatra, more than 75% of all the current RSPO Members' Concessions took the place of the 1990s habitats of endangered large mammal species. Of the current 27 RSPO certified supply bases in Indonesian Borneo (Kalimantan), 23 are located in an area that comprised an orangutan habitat up until 1999, the study found. Yet, three of these 27 RSPO certified supply bases were still fully covered by tropical forests up to 2003-2008 before being logged, transformed into oil palm plantations, and then certified as "sustainable." In Sumatra, the authors found that of the current 51 RSPO certified supply bases, nine are located in a Sumatran elephant habitat from 1985, 11 in Sumatran tiger habitat from 1990, and three are located in a 1991

Sumatran rhinoceros habitat. Moreover, of the current 173 RSPO-certified concessions in the Malaysian Borneo, 131 are located in an area that were orangutan habitats up to 1989, and 35 in orangutan habitats up to 1999.

The study also provides a time-series analysis of high-resolution satellite images (with 11-page supplementary figures showing the pattern from an intact forest through deforestation to a "sustainable" plantation in each certified concession and base), which revealed that the area covered by forest in 1984 in the current RSPO certified supply basis and concessions were significantly reduced up to 2020. "Currently, only patched and highly disturbed forests remain in certified bases and concessions," said Prof. Cazzolla Gatti. "We discovered that about half of Sumatran and the almost totality of Bornean certified supply bases were completely covered by tropical forests still in the 1980s, before being converted in oil palm plantations from in the 1990s, and then received the 'sustainability' label in the 2000s, whereas almost no forest remains now in 2020."

The authors write, "These results, providing evidence that higher portions of endangered large mammals habitats (like that of Bornean orangutan and Sumatran tiger, rhino and elephant) and almost intact [tropical forests](#) were depleted in very recent times (

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