Untouched primary forests are ‘irreplaceable’

BY GRACE CHUA

UNTouched primary forests are “irreplaceable” when it comes to saving tropical biodiversity, say researchers from the National University of Singapore (NUS).

Their work with scientists from Australia, Europe and the US analysed studies from around the world, comparing undisturbed forests with those that had been affected by farming, logging, plantations and other human activity.

The study, published in the journal Nature last month, also highlighted which regions of the globe have not been sufficiently studied. Africa is one, it found.

Birds, insects and plants are most vulnerable to forest clearing, the researchers said.

The study was initiated by the late Professor Navjot Sodhi of the NUS Department of Biological Sciences. Prof Sodhi’s doctoral student Luke Gibson of NUS and former master’s student Lee Tien Ming, now a doctoral student in the US, were its lead authors.

Prof Sodhi, 49, died of lymphoma in June.

One question in biodiversity conservation is whether degraded forests can help sustain a range of plant and animal life, and how effective they are in doing so, explained Mr Gibson.

He said the study examined this question directly, and assessed the relative value of different types of degraded forest. “Funding and other resources for biodiversity conservation are extremely limited, so we must use them as efficiently as possible,” he said.

“Our study will help identify where we should focus our conservation efforts.”

The researchers analysed 138 studies, looking at the impact of different types of forest degradation. All but one had a serious impact on biodiversity, the exception being selectively logged forests, where specific trees are cut down and the rest left intact.

The finding has implications for countries like Indonesia, which is allowing 35.4 million hectares of previously logged forest to be cleared in the belief that they are too degraded to sustain biodiversity.

One of the study’s authors, biologist William Laurence of James Cook University in Queensland, wrote in an essay on the Australian commentary site The Conversation (www.theconversation.edu.au):

“The bottom line is that old-growth rainforests are the greatest celebration of life on earth. But if we can’t save enough old-growth forest to sustain nature, then selectively logged forests are pretty good as well.”