

Short Notes

THE PHILIPPINE *Rafflesia panchoana* FROM MT. MAKILING, LUZON, AND *R. manillana* FROM BASEY, SAMAR, COMPARED (RAFFLESiaceae)

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After the original two species of *Rafflesia* R. Br. (Rafflesiaceae) described for the Philippines *R. manillana* Teschem. (1841) and *R. schadenbergiana* Goepf. (1885) eleven more species have been proposed between 2002 and-2011, and more are expected.

One of these was discovered in 2007 on Mt. Makiling in Laguna, Luzon. It was named *R. panchoana* Madulid, Buot & Agoo in honor of Juan V. Pancho, Professor of Botany at the Institute of Biological Sciences, University of the Philippines, Los Banos, Laguna. However, some authors have claimed that it would be identical with *R. manillana* from Basey, Samar, and that the correct name of the plant from Mt. Makiling therefore should be *R. manillana*.

The morphological differences of *R. panchoana* and *R. manillana* have been discussed in detail by Madulid et al. (2007) and by Madulid and Agoo (2007). However, the photo of *R. manillana* featured in the latter article showed a flower several days old that had started to decay whereby it is not possible to discern its appearance when it was fresh. Luckily, Regional Technical Director Manolito Ragub of the Department of Environment and Natural Resources (DENR) Region VIII provided us with some photos of a newly-opened flower of *R. manillana* taken in Basey, Samar, by his research staff, to whom we are very grateful.

In our previous publications we emphasized several striking morphological differences between *R. manillana* and *R. panchoana*. An obvious difference is the shape of their diaphragms. In *R. manillana* it is conspicuously incurved and the orifice or mouth is so narrow that the inner side of the perigone tube cannot be seen from above. This feature has been consistently observed in the flowers of *R. manillana*. However, it was not clearly shown in our earlier publication (Madulid and Agoo, 2007) for lack of photos of a newly-opened flower. The flower featured there was several days old and was about to decay. In *R. panchoana* the diaphragm is slightly

or almost upright in some flowers and this character varies within the population. Furthermore, the opening or orifice is relatively wide, leaving the lower inner side of the flower tube exposed to a view from above. The color of the diaphragm is also obviously different: $\frac{2}{3}$ in *R. manillana* it is creamy white when the flower is newly opened, turning creamy orange when the flower matures whereas in *R. panchoana* it is reddish brown when newly opened, turning deep reddish brown when older. Furthermore, the density of the white warts on the perigone is markedly different between the two species.

These differences are clearly seen in the photos of newly-opened flowers of *R. manillana* and *R. panchoana* reproduced here as Fig. 1 (courtesy of the Regional Technical Director M. Ragub, DENR Region VIII) and Fig. 2 (taken by the late Professor Kamarudin Matt-Salleh of the Universiti Kebangsaan, Malaysia) in Mt. Makiling, Laguna.

LITERATURE CITED

Madulid, D.A. and Agoo, E.M.G. 2007. On the identity of *Rafflesia manillana* Teschem. (Rafflesiaceae). *Philippine Scientist* 44:57-70.

Madulid, D.A., Buot, I. and Agoo, E.M.G. 2007. *Rafflesia panchoana*, a new species from Luzon Island, Philippines. *Acta Manilana* 55:43-48



Figure 1. *Rafflesia manillana* from Basey, Samar



Figure 2. *Rafflesia panchoana* from Mt. Makiling, Laguna