Missouri Botanical Garden makes rare discovery of plant genus

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The Missouri Botanical Garden (MBG) has played a significant role in identifying a new genus, Yasunia, with two confirmed species from Ecuador and Peru, *Y. quadrata* and *Y. sessiliflora*.

New species are often found among the samples that are gifted to the Missouri Botanical Garden for identification. While hundreds of new plant species are identified each year, new genera are extremely uncommon, and being coupled with the two new species makes Yasunia very distinctive.

Henk van der Werff is the Head of Monographic Studies Department at the Missouri Botanical Garden. He explains, "There are many new species found mostly in the tropics each year. Typically, new species differ in minor characteristics from their close relatives. New genera differ in major characteristics from their relatives and such a find is truly a matter of luck and perseverance."

In 1993, MBG staff member David Neill collected the first sample in the Amazon lowlands of Ecuador, yet it remained an undetermined specimen due to the lack of detail, particularly of the flower which is needed for identification. Local staff conducting floristic inventory in the Yasuni National Park collected additional specimens from a tagged tree, ensuring that the information necessary for identification would become available. From these samples, it was determined that the characteristics present in the new specimens did not fit into any of the recognized Neotropical genera of Lauraceae.

In 2003 the collection of the second species was located in the upper Rio Utiquinia in Ucayali (Peru) near the border of Brazil. In minor details, it is very different from the Ecuadorian species.

DNA of the two Yasunia species and their related analysis may ultimately result in changes of the classification of the plant family.

"This is an extremely rare and exciting scenario. The two new species that were collected did not belong in a known genus, so what we suddenly had were both two new species and new genus. Usually, when a new genus is discovered, it is associated with only one species. It is very unusual to find two new species belonging to the same new genus. Yasunia with two new species is one of those very rare cases," said Van der Werff.

With scientists working in 35 countries on six continents around the globe, the Missouri Botanical Garden has one of the three largest plant science programs in the world. The Garden's mission is "to discover and share knowledge about plants and their environment in order to preserve and enrich life."

Provided by Missouri Botanical Garden