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From dull to exciting: the first mutant *Sansevieria* (*Dracaena*) *liberica*

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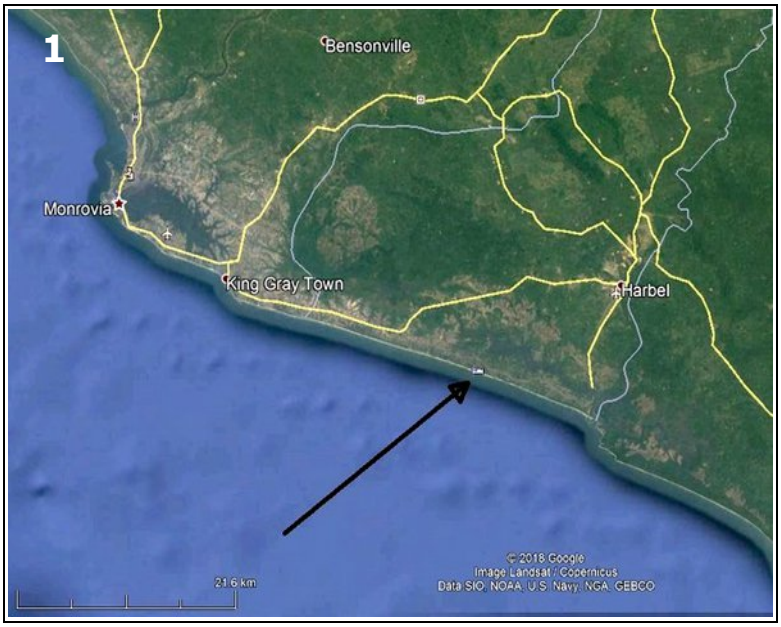
Abstract

The authors report an accidental yellow-variegated mutation on a living specimen of *Sansevieria liberica* from a population found near the Liberian coast. The National Tree Museum Gimborn acquired a specimen from the population, which was further propagated by leaf cuttings. Heavy yellow variegation was observed on a new shoot on one of the cuttings. The potential new cultivar is tentatively named *Sansevieria* (*Dracaena*) *liberica* 'Rheingold'.

Introduction

In 2019 a Dutch taxonomist colleague of ours, Carel Jongkind, found a population of *Sansevieria liberica* close to the Liberian coast southwest of Harbel (**Fig. 1**). His picture of the population (**Fig. 2**) shows the population if this somewhat unimpressive species. One can imagine that there is not too much drive among *Sansevieria*-aficionados to acquire this species for their collection (those who are now deeply offended, forgive us for having a bad taste……). That said, we did become interested in this species and the second author (known for a.o. introducing a number of new African *Dracaena* species: Damen et al. 2018 and revising *Dracaena* for the Flora of Gabon:



Damen & Van der Burgh, 2020), acquired a plant from Jongkind, who had taken it from the above mentioned population. Our interest was based on the fact that it was of known origin and we considered it well worth growing and multiplying such material for interested botanical gardens and also for exchange purposes.

Leaf cuttings from this plant were grown at the National Tree Museum Gimborn in the Netherlands whose director the first author was at that time. The cuttings rooted well and developed shoots (F**igs 3 & 4**). To our utter surprise, the first shoot to appear from one of the cuttings showed a strongly variegated leaf! The variegation is similar to several cultivars of e.g. *Sansevieria masoniana* and *S. hyacinthoides*. It consists of narrow and broad longitudinal, yellow bands. **Fig. 5** shows the situation after the shoot had matured. On the left side in the pot the original green leaf cutting is seen and on the right side of it, the variegated shoot. The new shoot separated from its parent leaf cutting quite soon when it had developed a good independent rhizome with a new distant shoot on it, showing the continuity of the variegation (**Fig. 6**). After maturation the leaf of this new shoot had a yellow left half and a green right half (**Fig. 7** the distant leaf); the cut-away leaf damages on the older leaf were caused by overexposure to sunlight when the automatic greenhouse shading had failed). At this moment, a new leaf is developing from the axil of the aforementioned half-variegated leaf. It looks quite green now (**Fig. 8**, the tubular folded new leaf), and I hope it is not a fallback to full green. But this will become clear as the leaf matures.

What makes this discovery so exciting is the fact that, to our knowledge, there has never been seen a variegated form of *S. liberica*. Peter Mansfeld helped us out by scrounging all relevant literature at his disposal and came to the same conclusion, so we are confident that this is form is a newbie and a first for the species.

A taxonomist (and we both are…) might suggest that the plant would be the basis for a new botanical variety and should named according to the nomenclature rules of the International Code of

Nomenclature for algae, fungi and plants (ICN, Turland et al. 2018) but we disagree. This mutation came about in circumstances of domestication (human controlled conditions) and will be artificially propagated away from the evolution-driving force of "natural selection" (under which it probably would disappear quite quickly). Propagating and selecting organisms under human controlled circumstances is at best "artificial selection". Nothing wrong with that (although this is not seen this way by everyone) but issues of domestication must not be confused by using the nomenclatural language of the non-human influenced evolutionary domain (or what is left of it).

At this point we consider it a bit too early to present this discovery as a full blown new cultivar, as this would not be according to the intention of the International Code of Nomenclature for Cultivated Plants (ICNCP, Brickell et al., 2016) from which it is clear that naming cultivars is not quite meant for single, non multiplied plants. Besides, it is not yet clear if the variegation will show itself stable enough to comply to the S-norm (Stability) of the international DUS-criterion (Distinction, Uniformity, Stability, see ICNCP art. 2.3) for a proper cultivar to be introduced. That said, we do like to propose here already what we would like the name for it to be:
Dracaena liberica 'Rheingold' (and yes, one of us is a Wagner aficionado!) or alternatively (here both authors disagree), *Sansevieria liberica* 'Rheingold'.

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