



First report on *Pectobacterium aroidearum*, a new pathogen causing soft rot on alocasia (*Alocasia amazonica*) in Poland

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Soft rot symptoms in the form of beige, necrotic, hydrated spots located at the base of the leaf shoots were observed on young alocasia plants in one of the greenhouses of ornamental plant producers located near Bydgoszcz in April 2022. The symptoms spread towards the leaf blades, causing their maceration and then the death of the entire plant. From the diseased tissue, isolation of bacteria on NAS medium was performed and the majority of grown colonies showed morphology characteristic of bacteria belonging to *Pectobacterium*, similar to the *Pectobacterium* 9M and EccUG strains used in the test as a reference (Fig. S1H).

Five *Pectobacterium*-like isolates were selected from the grown bacterial colonies. All isolates were able to macerate potato tuber tissues (Fig. S1I a, J). All 5 alocasia isolates induce tobacco hypersensitivity (Fig. S1I b).

The 16S rDNA region of all isolates was partially sequenced and the sequences were identical. The pathogenicity test on cut-off petioles (Mikiciński et al. 2010) and leaves of alocasia were performed with AL1a, AL4, and AL8 isolates (Fig. S1D–G). The obtained disease symptoms recalled previously observed ones on diseased plants. Bacteria of the same morphology as used for inoculation were re-isolated from the infected tissues and re-identified by 16S rDNA sequencing. For three isolates (AL1a, AL4, AL8) full-length 16S rDNA sequence was obtained (GenBank accession Nos. OP894930–32) and it showed over 99.5% identity with *Pectobacterium aroidearum* (MF155025). Based on the concatenated sequences of *acnA* (GenBank accession Nos. OP186209–11) and *proA* (GenBank accession Nos. OP186212–14) amplified and sequenced with primers designed by Ma et al. (2007) and phylogenetic analysis, isolated bacteria were classified to *Pectobacterium aroidearum* (Fig. S1K).

Bacteria of this species were reported on different plant species (Nabhan et al. 2013) but this is the first report of soft rot caused by *P. aroidearum* on *Alocasia amazonica*.

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Declarations

Research involving human participants and/or animals The research did not include tests on humans or animals.

Consent to participate The authors declare consent to participate.

Consent for publication The authors declare consent for publication.

Conflict of interests The authors declare that they have no conflict of interests.

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