Longread-only approach to the organellar genome assembly of a rare endemic non-model species

*Crepis callicephala* Juz. (Asteraceae)

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C. callicephala Juz. is a rare endemic species of Crimean Flora.

- perspective source of biologically active compounds
- wild relative of such important cultivated plants as Lactuca and Cichorium
- notable niche specialisation
- the genus has a great success story as an object in cytoembriology, but still is unclear in modern omics approaches
- endangered conservation status
Plastid genome assembly tools used

*de novo tools:*
- Canu, flye, pomoxis (*de novo* mode) and NECAT

*reference-guided tools:*
- pomoxis (*reference-guided* mode)
None of widely used *de novo* assembly tools worked well

Reference was constructed from three plastomes – the one belonged to *L. sativa*, and the others were produced by pomoxis-medaka pipeline both in reference-guided and *de novo* modes. Mapped reads were used for assembly with pomoxis-medaka on *L. sativa* reference.

Resulting plastome of *C. callicephala* had length 149,463 bp and contained 35 tRNA, 120 protein-coding genes and 13 putative pseudogenes.

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