Longread-only approach to the organellar genome assembly of a rare endemic non-model species *Crepis callicephala* Juz. (Asteraceae)

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Crepis callicephala Juz.

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 moden omics approaches
- endangered conservation status

Plastid genome assembly tools used

de novo tools:

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

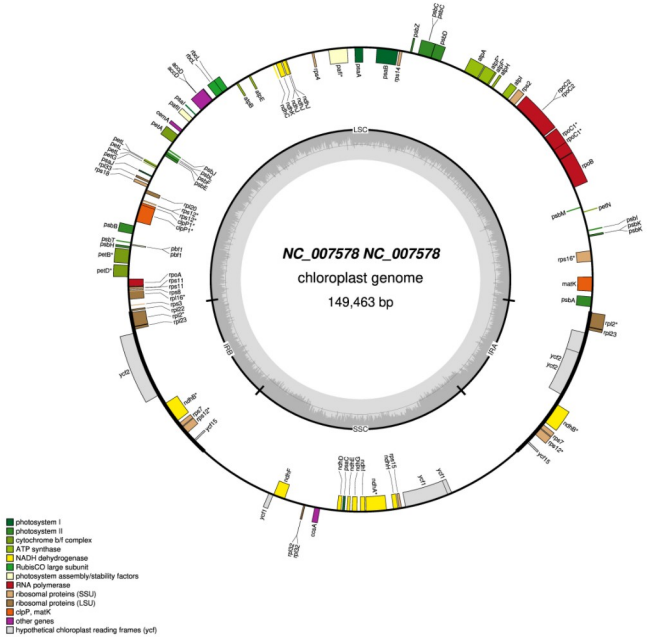
reference-guided tools:

- 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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