First report of fig cryptic virus on fig in Russia

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Twenty-nine mosaic-affected fig trees in the cultivar collection of the Nikita Botanical Gardens, Yalta, Russia, were surveyed for fig viruses (Preising et al. 2020) in June 2020. Three *Ficus carica* L. and one *F. palmata* Forrsk. trees were tested positive for fig cryptic virus (FCV). RT-PCR with primer sets R1s/a and R2s/a (Elbeaino et al. 2011), targeting ORF1 and ORF2, generated expected PCR products of 351 and 373 bp, respectively. High-throughput sequencing (HTS) of dsRNA from FCV-infected leaves was performed on MiSeq Illumina platform. Contigs were assembled de novo using metaSpades program (Nurk et al. 2017). In each of four samples, two FCV-related contigs sized from 1402 to 1685 nucleotides and five or six fig mosaic virus (FMV)-related contigs 1198 to 7039 nucleotides long were found by BLASTn. Sequences of PCR products and corresponding regions of FCV genome determined by Sanger method (MW558351 – MW558356) and HTS (MW291643 – MW291650), respectively, were identical. FCV-related contigs spanned 99.1 to 100% of corresponding genomic segments of the most closely related isolate BN13 (FR687854, FR687855) from Italy. Isolates F30, F31 and F33 from *F. carica* cultivars Temri, Kraps di Hersh, and Smena, respectively, were 100% identical to each other at the nucleotide level and shared 99.3 (RNA1) and 99.6% (RNA2) identity with BN13. Isolate F28 from *F. palmata* was 96.6 (RNA1) and 95.1% (RNA2) identical to isolates from *F. carica* at the nucleotide and 97.0 (RNA1) and 97.9%

(RNA2) at the amino acid levels. As FCV is symptomless on *F. carica* (Elbeaino et al. 2011), symptoms of mosaic disease may be due to mixed infection with FMV. To the best of our knowledge, this is the first report of FCV in Russia expanding the information on its geographical distribution. Also, FCV was first found on *F. palmata* extending natural host range of the virus.

Sequence data that support the findings of this study have been deposited in GenBank with the accession codes MW291643—MW291650 and MW558351 – MW558356.

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Declarations

Conflict of interests The authors declare that there are no conflicts of interest.

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