**Table S1** Chromosome number, genome size and degrees of domestication available for the genus *Annona*; missing data (-).

|  |  |  |  |
| --- | --- | --- | --- |
| Species | Chromosome number | Genome size (1C) | Degree of domestication |
| *Annona acutiflora* Mart. | 2n = 2x = 14ª | - | - |
| *Annona ambotay* Aubl. | 2n = 2x = 14ª | - | - |
| *Annona cacans* Warm. | 2n = 2x = 14b | 1h | - |
| *Annona cherimola* Mill. | 2n = 2x = 14b | 1.7g | Domesticated i |
| *Annona coriacea* Mart. | 2n = 6x = 42a | - | Wild j |
| *Annona crassiflora* Mart. | 2n = 2x = 14f | - | - |
| *Annona cuspidata* (Mart.) H. Rainer\* | 2n = 4x = 28e | - | Incipiently  Domesticated i,l |
| *Annona dioica* A. St.-Hil. \* | 2n = 2x = 14a | - | - |
| *Annona emarginata* (Schltdl.) H. Rainer\* | 2n = 2x = 14c | 1.68g | Domesticated i |
| *Annona exsucca* DC. ex Dunal\* | 2n = 2x = 14e 2n = 4x = 28c | - | - |
| *Annona glabra* L. | 2n = 4x = 28b | 1.30h | Wild k |
| *Annona hispida* (Maas & Westra) H. Rainer\* | 2n = 4x = 28e | - | - |
| *Annona hypoglauca* Mart. | 2n = 2x = 14c | - | - |
| *Annona jahnii* Saff. | 2n = 2x = 14c | - | - |
| *Annona jucunda* (Diels) H. Rainer\* | 2n = 2x = 14e 2n = 4x = 28c | - | - |
| *Annona lutescens* Saff. | 2n = 4x = 28b | 1h | Wild l |
| *Annona macroprophyllata* Donn. Sm. | 2n = 2x = 14d | - | Domesticated i,k |
| *Annona mammifera* (Maas & Westra) H. Rainer\* | 2n = 4x = 28e | - | - |
| *Annona montana* Macf. | 2n = 2x = 14b | - | Semi-Domesticated i |
| *Annona monticola* Mart. | 2n = 4x = 28c | - | - |
| *Annona mucosa* Jacq.\* | 2n = 4x = 28e 2n = 6x = 42c | 2.3m  2.7n  3i | Domesticated i |
| *Annona muricata* L. | 2n = 2x = 14b | 1.7g | Domesticated i |
| *Annona neoinsignis* H. Rainer\* | 2n = 2x = 14c | - | - |
| *Annona neolaurifolia* H. Rainer\* | 2n = 4x = 28b | - | - |
| *Annona neosalicifolia* H. Rainer\* | 2n = 6x = 42g | 4.82a | - |
| *Annona nítida* Mart. | 2n = 2x = 14a | - | - |
| *Annona papilionella* (Diels) H. Rainer\* | 2n = 2x = 14e | - | - |
| *Annona prevostiae* H. Rainer | 2n = 2x = 14d | - | - |
| *Annona purpurea* Moc. & Sesse | 2n = 2x = 14c | - | Semi-Domesticated i,k |
| *Annona reticulata* L. | 2n = 2x = 14b | 1.3h | Semi-Domesticated i |
| *Annona salzmanni* A. DC. | 2n = 2x = 14a | - | - |
| *Annona scandens* Diels. | 2n = 2x = 14c | - | - |
| *Annona senegalensis* Pers. | 2n = 2x = 14g | 1.7g | - |
| *Annona squamosa* L. | 2n = 2x = 14g | 1.2g 1.63h | Domesticated i |
| *Annona sylvatica* (A. St.-Hil.) Martius\* | 2n = 8x = 56c | - | Wild l |
| *Annona tomentosa* R. E. Fr. | 2n = 2x = 14c | - | - |
| *Annona williamsii* (Rusby ex R.E.Fr.) H. Rainer\* | 2n = 4x = 28e | - | - |

a (Morawetz 1984), b (Morawetz 1986*b*), c (Morawetz 1986*a*), d (Goldblatt & Johnson 1994), e (Maas *et al.* 1992), f (Ribeiro 2012), g (Martin *et al.* 2019), h (Leitch et al. 2019), i (Patiño 2002), j (VMABCC-BIOVERSITY 2009), k (Escobedo-López et al. 2019), l (Segura et al. 2018), m (Soares et al. 2014), n (Lorenzoni 2016)

The hyphen (-) in the domestication degrees column means lack of information, but probably represents wild.

\* Asterix after author name identifies Rollinia clade species.

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