

**Table S1.** Wild Plants tested for the presence of yellow tailflower mild mottle virus, their collection sites in Perth metropolitan region (LY, Yanchep; LP, Ledge Point; LT, Lake Thetis; DT, Dirt Track; SH, Sandhills; BL, Bibra Lake; CR, Canning River; BTA and BTB, Bertram; MU: Murdoch; DR, Dixon Road; LM and LMB, Leeming), Western Australia.

| No. | Species                        | Label of sample | RT-PCR test <sup>a</sup> |
|-----|--------------------------------|-----------------|--------------------------|
| 1   | <i>Anthocercis illicifolia</i> | LY1             | Negative                 |
| 2   | <i>A. illicifolia</i>          | LY2             | Negative                 |
| 3   | <i>A. illicifolia</i>          | LY3             | Negative                 |
| 4   | <i>A. illicifolia</i>          | LY4             | Negative                 |
| 5   | <i>A. illicifolia</i>          | LY5             | Negative                 |
| 6   | <i>A. illicifolia</i>          | LY6             | Negative                 |
| 7   | <i>A. illicifolia</i>          | LY7             | Negative                 |
| 8   | <i>A. illicifolia</i>          | LY8             | Positive                 |
| 9   | <i>A. illicifolia</i>          | LY9             | Negative                 |
| 10  | <i>A. illicifolia</i>          | LY10            | Negative                 |
| 11  | <i>A. illicifolia</i>          | LY11            | Positive                 |
| 12  | <i>A. illicifolia</i>          | LY12            | Positive                 |
| 13  | <i>A. illicifolia</i>          | LY13            | Negative                 |
| 14  | <i>A. illicifolia</i>          | LY14            | Negative                 |
| 15  | <i>A. illicifolia</i>          | LY15            | Positive                 |
| 16  | <i>A. illicifolia</i>          | LY16            | Positive                 |
| 17  | <i>A. illicifolia</i>          | LY17            | Positive                 |
| 18  | <i>A. illicifolia</i>          | LY18            | Negative                 |
| 19  | <i>A. illicifolia</i>          | LY19            | Negative                 |
| 20  | <i>A. illicifolia</i>          | LY20            | Negative                 |
| 21  | <i>A. illicifolia</i>          | LY21            | Negative                 |
| 22  | <i>A. illicifolia</i>          | LY22            | Negative                 |
| 23  | <i>A. illicifolia</i>          | LY23            | Negative                 |
| 24  | <i>A. illicifolia</i>          | LY24            | Positive                 |
| 25  | <i>A. illicifolia</i>          | LY25            | Positive                 |
| 26  | <i>A. illicifolia</i>          | LY26            | Negative                 |
| 27  | <i>A. illicifolia</i>          | LP1             | Positive                 |
| 28  | <i>A. illicifolia</i>          | LP2             | Positive                 |
| 29  | <i>A. illicifolia</i>          | LP3             | Positive                 |
| 30  | <i>A. illicifolia</i>          | LP4             | Positive                 |
| 31  | <i>A. illicifolia</i>          | LP5             | Positive                 |
| 32  | <i>A. illicifolia</i>          | LT1             | Negative                 |
| 33  | <i>A. illicifolia</i>          | LT2             | Negative                 |
| 34  | <i>A. illicifolia</i>          | LT3             | Negative                 |
| 35  | <i>A. illicifolia</i>          | LT4             | Negative                 |
| 36  | <i>A. illicifolia</i>          | LT5             | Negative                 |
| 37  | <i>A. illicifolia</i>          | LT6             | Positive                 |
| 38  | <i>A. illicifolia</i>          | LT7             | Positive                 |

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|    |                             |      |          |
|----|-----------------------------|------|----------|
| 39 | <i>A. illicifolia</i>       | LT8  | Positive |
| 40 | <i>A. illicifolia</i>       | LT9  | Positive |
| 41 | <i>A. illicifolia</i>       | LT10 | Positive |
| 42 | <i>A. illicifolia</i>       | LT11 | Positive |
| 43 | <i>A. illicifolia</i>       | LT12 | Positive |
| 44 | <i>A. illicifolia</i>       | LT13 | Positive |
| 45 | <i>A. illicifolia</i>       | LT14 | Positive |
| 46 | <i>A. illicifolia</i>       | LT15 | Positive |
| 47 | <i>A. illicifolia</i>       | LT16 | Negative |
| 48 | <i>A. illicifolia</i>       | LT17 | Negative |
| 49 | <i>A. illicifolia</i>       | LT18 | Positive |
| 50 | <i>A. illicifolia</i>       | LT19 | Positive |
| 51 | <i>A. illicifolia</i>       | LT20 | Positive |
| 52 | <i>A. illicifolia</i>       | LT21 | Negative |
| 53 | <i>Anthocercis littoria</i> | LP6  | Negative |
| 54 | <i>A. littoria</i>          | LP7  | Negative |
| 55 | <i>A. littoria</i>          | LP8  | Negative |
| 56 | <i>A. littoria</i>          | LP9  | Negative |
| 57 | <i>A. littoria</i>          | LP10 | Negative |
| 58 | <i>A. littoria</i>          | LP11 | Negative |
| 59 | <i>A. littoria</i>          | LP12 | Negative |
| 60 | <i>A. littoria</i>          | LP13 | Negative |
| 61 | <i>A. littoria</i>          | LP14 | Negative |
| 62 | <i>A. littoria</i>          | LP15 | Negative |
| 63 | <i>A. littoria</i>          | LP16 | Negative |
| 64 | <i>A. littoria</i>          | LP17 | Negative |
| 65 | <i>A. littoria</i>          | LP18 | Negative |
| 66 | <i>A. littoria</i>          | LP19 | Negative |
| 67 | <i>A. littoria</i>          | LP20 | Negative |
| 68 | <i>A. littoria</i>          | LP21 | Negative |
| 69 | <i>A. littoria</i>          | LP22 | Negative |
| 70 | <i>A. littoria</i>          | LP23 | Negative |
| 71 | <i>A. littoria</i>          | LP24 | Negative |
| 72 | <i>A. littoria</i>          | LP25 | Negative |
| 73 | <i>A. littoria</i>          | LP26 | Negative |
| 74 | <i>A. littoria</i>          | LP27 | Negative |
| 75 | <i>A. littoria</i>          | LP28 | Negative |
| 76 | <i>A. littoria</i>          | LP29 | Negative |
| 77 | <i>A. littoria</i>          | LP30 | Negative |
| 78 | <i>A. littoria</i>          | LP31 | Negative |
| 79 | <i>A. littoria</i>          | LP32 | Negative |
| 80 | <i>A. littoria</i>          | LP33 | Negative |
| 81 | <i>A. littoria</i>          | DT1  | Negative |
| 82 | <i>A. littoria</i>          | DT2  | Positive |

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|-----|-----------------------------|------|----------|
| 83  | <i>A. littoria</i>          | DT3  | Positive |
| 84  | <i>A. littoria</i>          | DT4  | Positive |
| 85  | <i>A. littoria</i>          | DT5  | Negative |
| 86  | <i>A. littoria</i>          | SH1  | Positive |
| 87  | <i>A. littoria</i>          | SH2  | Positive |
| 88  | <i>A. littoria</i>          | SH3  | Negative |
| 89  | <i>A. littoria</i>          | SH4  | Negative |
| 90  | <i>A. littoria</i>          | SH5  | Negative |
| 91  | <i>A. littoria</i>          | SH6  | Positive |
| 92  | <i>A. littoria</i>          | SH7  | Positive |
| 93  | <i>A. littoria</i>          | SH8  | Positive |
| 94  | <i>A. littoria</i>          | SH9  | Positive |
| 95  | <i>A. littoria</i>          | SH10 | Negative |
| 96  | <i>A. littoria</i>          | SH11 | Positive |
| 97  | <i>A. littoria</i>          | SH12 | Positive |
| 98  | <i>A. littoria</i>          | SH13 | Negative |
| 99  | <i>A. littoria</i>          | SH14 | Positive |
| 100 | <i>A. littoria</i>          | SH15 | Positive |
| 101 | <i>A. littoria</i>          | SH16 | Negative |
| 102 | <i>A. littoria</i>          | SH17 | Negative |
| 103 | <i>A. littoria</i>          | SH18 | Negative |
| 104 | <i>A. littoria</i>          | SH19 | Negative |
| 105 | <i>A. littoria</i>          | SH20 | Positive |
| 106 | <i>A. littoria</i>          | SH21 | Positive |
| 107 | <i>A. littoria</i>          | SH22 | Negative |
| 108 | <i>A. littoria</i>          | SH23 | Negative |
| 109 | <i>Physalis peruviana</i>   | LY27 | Negative |
| 110 | <i>P. peruviana</i>         | LY28 | Positive |
| 111 | <i>P. peruviana</i>         | LY29 | Positive |
| 112 | <i>P. peruviana</i>         | LY30 | Negative |
| 113 | <i>P. peruviana</i>         | LY31 | Positive |
| 114 | <i>P. peruviana</i>         | LY32 | Positive |
| 115 | <i>P. peruviana</i>         | LY33 | Positive |
| 116 | <i>P. peruviana</i>         | LY60 | Positive |
| 117 | <i>Solanum lycopersicum</i> | BL12 | Negative |
| 118 | <i>S. nigrum</i>            | LY34 | Positive |
| 119 | <i>S. nigrum</i>            | LY35 | Negative |
| 120 | <i>S. nigrum</i>            | LY36 | Positive |
| 121 | <i>S. nigrum</i>            | LY37 | Positive |
| 122 | <i>S. nigrum</i>            | LY38 | Negative |
| 123 | <i>S. nigrum</i>            | LY39 | Negative |
| 124 | <i>S. nigrum</i>            | LY40 | Positive |
| 125 | <i>S. nigrum</i>            | LY41 | Positive |
| 126 | <i>S. nigrum</i>            | LY42 | Positive |

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|-----|------------------|-------|----------|
| 127 | <i>S. nigrum</i> | LY43  | Positive |
| 128 | <i>S. nigrum</i> | LY44  | Negative |
| 129 | <i>S. nigrum</i> | LY45  | Negative |
| 130 | <i>S. nigrum</i> | LY46  | Positive |
| 131 | <i>S. nigrum</i> | LY47  | Negative |
| 132 | <i>S. nigrum</i> | LY48  | Positive |
| 133 | <i>S. nigrum</i> | LY49  | Negative |
| 134 | <i>S. nigrum</i> | LY50  | Positive |
| 135 | <i>S. nigrum</i> | LY51  | Positive |
| 136 | <i>S. nigrum</i> | LY52  | Positive |
| 137 | <i>S. nigrum</i> | LY53  | Negative |
| 138 | <i>S. nigrum</i> | LY54  | Negative |
| 139 | <i>S. nigrum</i> | LY55  | Negative |
| 140 | <i>S. nigrum</i> | LY56  | Positive |
| 141 | <i>S. nigrum</i> | LY57  | Positive |
| 142 | <i>S. nigrum</i> | LY58  | Negative |
| 143 | <i>S. nigrum</i> | LY59  | Positive |
| 144 | <i>S. nigrum</i> | BL1   | Negative |
| 145 | <i>S. nigrum</i> | BL2   | Negative |
| 146 | <i>S. nigrum</i> | BL3   | Negative |
| 147 | <i>S. nigrum</i> | BL4   | Negative |
| 148 | <i>S. nigrum</i> | BL5   | Positive |
| 149 | <i>S. nigrum</i> | BL6   | Negative |
| 150 | <i>S. nigrum</i> | BL7   | Negative |
| 151 | <i>S. nigrum</i> | BL8   | Positive |
| 152 | <i>S. nigrum</i> | BL9   | Negative |
| 153 | <i>S. nigrum</i> | BL10  | Negative |
| 154 | <i>S. nigrum</i> | BL11  | Negative |
| 155 | <i>S. nigrum</i> | CR1   | Negative |
| 156 | <i>S. nigrum</i> | CR2   | Negative |
| 157 | <i>S. nigrum</i> | CR3   | Negative |
| 158 | <i>S. nigrum</i> | CR4   | Negative |
| 159 | <i>S. nigrum</i> | BTA1  | Positive |
| 160 | <i>S. nigrum</i> | BTA2  | Positive |
| 161 | <i>S. nigrum</i> | BTA3  | Negative |
| 162 | <i>S. nigrum</i> | BTA4  | Positive |
| 163 | <i>S. nigrum</i> | BTA5  | Positive |
| 164 | <i>S. nigrum</i> | BTA6  | Positive |
| 165 | <i>S. nigrum</i> | BTA7  | Positive |
| 166 | <i>S. nigrum</i> | BTA8  | Negative |
| 167 | <i>S. nigrum</i> | BTA9  | Negative |
| 168 | <i>S. nigrum</i> | BTA10 | Positive |
| 169 | <i>S. nigrum</i> | BTB1  | Positive |
| 170 | <i>S. nigrum</i> | BTB2  | Negative |

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|     |                  |       |          |
|-----|------------------|-------|----------|
| 171 | <i>S. nigrum</i> | BTB3  | Positive |
| 172 | <i>S. nigrum</i> | BTB4  | Negative |
| 173 | <i>S. nigrum</i> | BTB5  | Positive |
| 174 | <i>S. nigrum</i> | BTB6  | Positive |
| 175 | <i>S. nigrum</i> | BTB7  | Negative |
| 176 | <i>S. nigrum</i> | MU1   | Negative |
| 177 | <i>S. nigrum</i> | MU2   | Negative |
| 178 | <i>S. nigrum</i> | MU3   | Negative |
| 179 | <i>S. nigrum</i> | MU4   | Negative |
| 180 | <i>S. nigrum</i> | DR1   | Negative |
| 181 | <i>S. nigrum</i> | DR2   | Positive |
| 182 | <i>S. nigrum</i> | DR3   | Positive |
| 183 | <i>S. nigrum</i> | DR4   | Positive |
| 184 | <i>S. nigrum</i> | DR5   | Negative |
| 185 | <i>S. nigrum</i> | DR6   | Positive |
| 186 | <i>S. nigrum</i> | LM1   | Positive |
| 187 | <i>S. nigrum</i> | LM2   | Negative |
| 188 | <i>S. nigrum</i> | LM3   | Positive |
| 189 | <i>S. nigrum</i> | LM4   | Positive |
| 190 | <i>S. nigrum</i> | LM5   | Positive |
| 191 | <i>S. nigrum</i> | LM6   | Positive |
| 192 | <i>S. nigrum</i> | LM7   | Negative |
| 193 | <i>S. nigrum</i> | LM8   | Negative |
| 194 | <i>S. nigrum</i> | LM9   | Positive |
| 195 | <i>S. nigrum</i> | LM10  | Positive |
| 196 | <i>S. nigrum</i> | LM11  | Positive |
| 197 | <i>S. nigrum</i> | LM12  | Negative |
| 198 | <i>S. nigrum</i> | LM13  | Negative |
| 199 | <i>S. nigrum</i> | LM14  | Negative |
| 200 | <i>S. nigrum</i> | LMB1  | Positive |
| 201 | <i>S. nigrum</i> | LMB2  | Positive |
| 202 | <i>S. nigrum</i> | LMB3  | Positive |
| 203 | <i>S. nigrum</i> | LMB4  | Negative |
| 204 | <i>S. nigrum</i> | LMB5  | Negative |
| 205 | <i>S. nigrum</i> | LMB6  | Positive |
| 206 | <i>S. nigrum</i> | LMB7  | Positive |
| 207 | <i>S. nigrum</i> | LMB8  | Negative |
| 208 | <i>S. nigrum</i> | LMB9  | Negative |
| 209 | <i>S. nigrum</i> | LMB10 | Negative |

<sup>a</sup> Positive or negative for the presence of YTMMV using virus-specific primers YTMMVCPF: 5'-GCTTAAAGAGCGAATTGATGAG and YTMMVCPR: 5'-CCATTGTAGTCTGCACAGCAC that amplified a fragment of the viral coat protein.

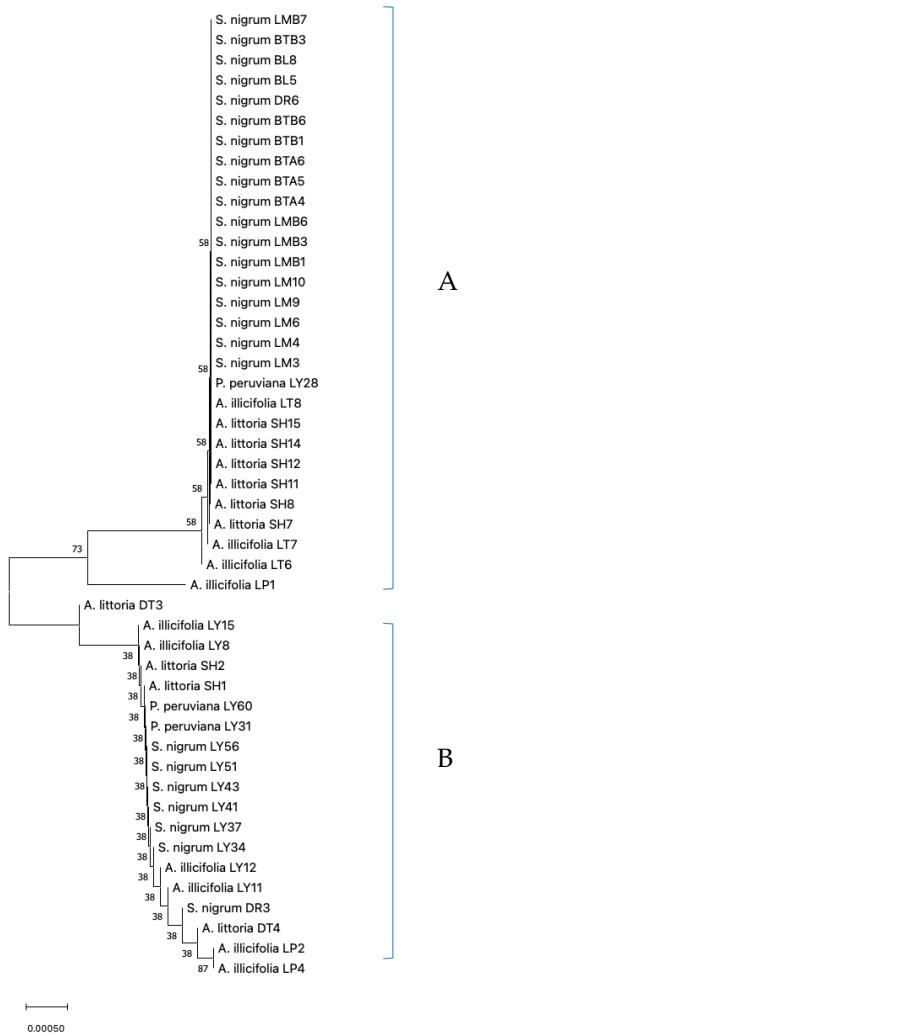
**Table S2.** Host species and original location of yellow tailflower mild mottle virus (YTMMV) isolates used in this study. Genbank accession codes are of partial (356 nt) viral CP genes.

| Species                        | Location             | YTMMV isolate | Genbank accession |
|--------------------------------|----------------------|---------------|-------------------|
| <i>Solanum nigrum</i>          | Bertram              | ST-BTA1       | ON733090          |
| <i>S. nigrum</i>               | Bertram              | ST-BTA2       | ON733091          |
| <i>S. nigrum</i>               | Bertram              | BTA4          | ON733069          |
| <i>S. nigrum</i>               | Bertram              | BTA5          | ON733070          |
| <i>S. nigrum</i>               | Bertram              | BTA6          | ON733071          |
| <i>S. nigrum</i>               | Bertram              | BTB1          | ON733072          |
| <i>S. nigrum</i>               | Bertram              | BTB3          | ON733073          |
| <i>S. nigrum</i>               | Bertram              | BTB6          | ON733074          |
| <i>S. nigrum</i>               | Bibra Lake           | BL5           | ON733067          |
| <i>S. nigrum</i>               | Bibra Lake           | BL8           | ON733068          |
| <i>Anthocercis littoria</i>    | Cervantes Dirt Track | DT3           | ON733048          |
| <i>A. littoria</i>             | Cervantes Dirt Track | DT4           | ON733049          |
| <i>A. littoria</i>             | Cervantes Sandhills  | SH1           | ON733050          |
| <i>A. littoria</i>             | Cervantes Sandhills  | SH2           | ON733051          |
| <i>A. littoria</i>             | Cervantes Sandhills  | SH7           | ON733052          |
| <i>A. littoria</i>             | Cervantes Sandhills  | SH8           | ON733053          |
| <i>A. littoria</i>             | Cervantes Sandhills  | SH11          | ON733054          |
| <i>A. littoria</i>             | Cervantes Sandhills  | SH12          | ON733055          |
| <i>A. littoria</i>             | Cervantes Sandhills  | SH14          | ON733056          |
| <i>A. littoria</i>             | Cervantes Sandhills  | SH15          | ON733057          |
| <i>S. nigrum</i>               | Dixon road           | ST-DR2        | ON733092          |
| <i>S. nigrum</i>               | Dixon road           | DR3           | ON733075          |
| <i>S. nigrum</i>               | Dixon road           | DR6           | ON733076          |
| <i>Anthocercis illicifolia</i> | Lake Thetis          | LT6           | ON733045          |
| <i>A. illicifolia</i>          | Lake Thetis          | LT7           | ON733046          |
| <i>A. illicifolia</i>          | Lake Thetis          | LT8           | ON733047          |
| <i>A. illicifolia</i>          | Ledge Point          | LP1           | ON733042          |
| <i>A. illicifolia</i>          | Ledge Point          | LP2           | ON733043          |
| <i>A. illicifolia</i>          | Ledge Point          | LP4           | ON733044          |
| <i>S. nigrum</i>               | Leeming              | LM3           | ON733077          |
| <i>S. nigrum</i>               | Leeming              | LM4           | ON733078          |
| <i>S. nigrum</i>               | Leeming              | LM6           | ON733079          |
| <i>S. nigrum</i>               | Leeming              | LM9           | ON733080          |
| <i>S. nigrum</i>               | Leeming              | LM10          | ON733081          |
| <i>S. nigrum</i>               | Leeming              | LMB1          | ON733082          |
| <i>S. nigrum</i>               | Leeming              | LMB3          | ON733083          |
| <i>S. nigrum</i>               | Leeming              | LMB6          | ON733084          |
| <i>S. nigrum</i>               | Leeming              | LMB7          | ON733085          |
| <i>S. nigrum</i>               | Leeming              | LMB2          | ON733086          |

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|                           |         |      |          |
|---------------------------|---------|------|----------|
| <i>A. illicifolia</i>     | Yanchep | LY8  | ON733038 |
| <i>A. illicifolia</i>     | Yanchep | LY11 | ON733039 |
| <i>A. illicifolia</i>     | Yanchep | LY12 | ON733040 |
| <i>A. illicifolia</i>     | Yanchep | LY15 | ON733041 |
| <i>Physalis peruviana</i> | Yanchep | LY28 | ON733058 |
| <i>P. peruviana</i>       | Yanchep | LY31 | ON733059 |
| <i>P. peruviana</i>       | Yanchep | LY60 | ON733060 |
| <i>S. nigrum</i>          | Yanchep | LY34 | ON733061 |
| <i>S. nigrum</i>          | Yanchep | LY37 | ON733062 |
| <i>S. nigrum</i>          | Yanchep | LY41 | ON733063 |
| <i>S. nigrum</i>          | Yanchep | LY43 | ON733064 |
| <i>S. nigrum</i>          | Yanchep | LY51 | ON733065 |
| <i>S. nigrum</i>          | Yanchep | LY56 | ON733066 |

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**Figure S1.** Pairwise comparison of partial CP sequences (356 nt) of 48 YTMMV isolates from wild plants, indigenous and exotic, inferred by the Neighbor-Joining method. Host species and virus isolate names are given (GenBank accession codes given in Table S1). Virus isolate names include the site from which they were collected: LY, Yanchep; LP, Ledge Point; LT, Lake Thetis; DT, Dirt Track (Cervantes region); SH, Sandhills (Cervantes); BL, Bibra lake; CR, Canning River; BTA and BTB, Bertram; MU, Murdoch; DR, Dixon Road; LM and LMB, Leeming. The isolates fell into two main groups (A and B) as marked. The tree was drawn to scale, with branch lengths in the same units as those of the evolutionary distances used to infer the phylogenetic tree. The units of the number of base substitutions per site.