**Supplementary materials:**

**Modeling the distribution of *Zanthoxylum armatum* in China with MaxEnt modeling**

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Legend: Table S1 List of location points of *Zanthoxylum armatum* used in MaxEnt model

**Table S1** List of location points of *Zanthoxylum armatum* used in MaxEnt model

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Code | Location  (Country/ Region) | Longitude | Latitude | sources |
| 1 | China | 103.1 | 30.0 | Field study |
| 2 | China | 103.2 | 27.6 | Field study |
| 3 | China | 102.6 | 28.8 | Field study |
| 4 | China | 106.0 | 32.3 | Field study |
| 5 | China | 107.1 | 31.7 | Field study |
| 6 | China | 107.2 | 31.5 | Field study |
| 7 | China | 104.9 | 31.3 | Field study |
| 8 | China | 102.9 | 30.0 | Field study |
| 9 | China | 103.5 | 30.0 | Field study |
| 10 | China | 103.3 | 27.7 | Field study |
| 11 | China | 106.5 | 30.6 | Field study |
| 12 | China | 104.4 | 29.9 | Field study |
| 13 | China | 106.8 | 30.9 | Field study |
| 14 | China | 105.6 | 32.2 | Field study |
| 15 | China | 104.5 | 30.8 | Field study |
| 16 | China | 104.8 | 29.2 | Field study |
| 17 | China | 106.5 | 30.7 | Field study |
| 18 | China | 105.0 | 29.3 | Field study |
| 19 | China | 106.9 | 30.5 | Field study |
| 20 | China | 105.3 | 28.9 | Field study |
| 21 | China | 107.0 | 31.4 | Field study |
| 22 | China | 107.2 | 31.6 | Field study |
| 23 | China | 107.4 | 31.8 | Field study |
| 24 | China | 107.0 | 31.4 | Field study |
| 25 | China | 103.4 | 29.9 | Field study |
| 26 | China | 102.8 | 27.7 | Field study |
| 27 | China | 101.7 | 27.5 | Field study |
| 28 | China | 104.5 | 32.4 | CVH |
| 29 | China | 107.9 | 31.9 | GBIF |
| 30 | China | 103.5 | 30.8 | GBIF |
| 31 | China | 102.5 | 28.6 | GBIF |
| 32 | China | 103.7 | 30.7 | CVH |
| 33 | China | 103.3 | 29.6 | CVH |
| 34 | China | 102.7 | 25.0 | Field study |
| 35 | China | 103.2 | 27.5 | Field study |
| 36 | China | 102.6 | 25.0 | GBIF |
| 37 | China | 101.0 | 22.8 | CVH |
| 38 | China | 100.2 | 26.9 | GBIF |
| 39 | China | 100.3 | 27.2 | CVH |
| 40 | China | 102.2 | 24.5 | CVH |
| 41 | China | 98.7 | 26.0 | GBIF |
| 42 | China | 101.3 | 21.9 | GBIF |
| 43 | China | 99.2 | 27.1 | GBIF |
| 44 | China | 99.0 | 27.7 | GBIF |
| 45 | China | 105.6 | 25.6 | Field study |
| 46 | China | 105.5 | 27.3 | CVH |
| 47 | China | 106.7 | 26.4 | CVH |
| 48 | China | 106.9 | 25.3 | GBIF |
| 49 | China | 104.9 | 25.1 | GBIF |
| 50 | China | 105.4 | 26.8 | GBIF |
| 51 | China | 106.8 | 25.2 | GBIF |
| 52 | China | 105.4 | 26.8 | GBIF |
| 53 | China | 106.8 | 25.4 | CVH |
| 54 | China | 109.1 | 26.2 | CVH |
| 55 | China | 106.1 | 25.2 | GBIF |
| 56 | China | 106.7 | 26.3 | GBIF |
| 57 | China | 108.7 | 27.9 | CVH |
| 58 | China | 106.2 | 29.1 | Field study |
| 59 | China | 106.3 | 29.2 | Field study |
| 60 | China | 109.6 | 31.4 | GBIF |
| 61 | China | 110.1 | 31.2 | CVH |
| 62 | China | 110.0 | 31.0 | CVH |
| 63 | China | 108.7 | 29.6 | CVH |
| 64 | China | 108.5 | 32.0 | GBIF |
| 65 | China | 107.2 | 29.1 | GBIF |
| 66 | China | 109.7 | 30.8 | GBIF |
| 67 | China | 109.5 | 31.6 | GBIF |
| 68 | China | 112.0 | 26.7 | GBIF |
| 69 | China | 111.1 | 26.4 | CVH |
| 70 | China | 111.6 | 27.3 | CVH |
| 71 | China | 112.9 | 28.0 | CVH |
| 72 | China | 112.9 | 27.9 | CVH |
| 73 | China | 111.1 | 26.6 | CVH |
| 74 | China | 111.0 | 25.1 | GBIF |
| 75 | China | 113.9 | 28.5 | GBIF |
| 76 | China | 110.5 | 28.8 | GBIF |
| 77 | China | 110.9 | 30.0 | GBIF |
| 78 | China | 109.9 | 26.9 | GBIF |
| 79 | China | 112.9 | 26.7 | GBIF |
| 80 | China | 110.6 | 27.1 | CVH |
| 81 | China | 109.7 | 26.6 | CVH |
| 82 | China | 109.8 | 29.7 | CVH |
| 83 | China | 110.6 | 29.3 | CVH |
| 84 | China | 110.8 | 26.4 | CVH |
| 85 | China | 109.8 | 27.2 | CVH |
| 86 | China | 109.5 | 28.8 | CVH |
| 87 | China | 111.9 | 25.6 | CVH |
| 88 | China | 120.5 | 31.3 | GBIF |
| 89 | China | 113.3 | 24.4 | CVH |
| 90 | China | 113.3 | 24.8 | CVH |
| 91 | China | 113.3 | 25.4 | GBIF |
| 92 | China | 114.2 | 24.3 | GBIF |
| 93 | China | 114.2 | 22.5 | CVH |
| 94 | China | 113.6 | 24.4 | CVH |
| 95 | China | 114.3 | 24.1 | CVH |
| 96 | China | 113.5 | 23.1 | GBIF |
| 97 | China | 112.3 | 23.1 | GBIF |
| 98 | China | 112.4 | 25.0 | GBIF |
| 99 | China | 114.1 | 25.1 | GBIF |
| 100 | China | 113.7 | 24.3 | GBIF |
| 101 | China | 117.5 | 40.4 | GBIF |
| 102 | China | 115.5 | 28.1 | CVH |
| 103 | China | 114.9 | 25.9 | CVH |
| 104 | China | 115.5 | 24.9 | CVH |
| 105 | China | 114.2 | 26.6 | CVH |
| 106 | China | 116.6 | 29.8 | CVH |
| 107 | China | 117.7 | 29.5 | CVH |
| 108 | China | 116.0 | 29.5 | CVH |
| 109 | China | 114.1 | 25.9 | GBIF |
| 110 | China | 119.2 | 27.9 | CVH |
| 111 | China | 120.1 | 30.2 | CVH |
| 112 | China | 119.6 | 28.0 | CVH |
| 113 | China | 121.0 | 29.2 | CVH |
| 114 | China | 111.9 | 33.4 | GBIF |
| 115 | China | 111.6 | 33.0 | CVH |
| 116 | China | 111.7 | 33.6 | GBIF |
| 117 | China | 112.4 | 33.6 | GBIF |
| 118 | China | 105.4 | 32.8 | GBIF |
| 119 | China | 104.7 | 32.9 | CVH |
| 120 | China | 104.4 | 32.9 | CVH |
| 121 | China | 107.5 | 33.8 | GBIF |
| 122 | China | 106.9 | 33.6 | GBIF |
| 123 | China | 110.6 | 33.5 | CVH |
| 124 | China | 108.1 | 33.5 | CVH |
| 125 | China | 108.7 | 33.6 | CVH |
| 126 | China | 108.2 | 33.0 | CVH |
| 127 | China | 109.2 | 32.4 | CVH |
| 128 | China | 107.8 | 34.2 | CVH |
| 129 | China | 110.3 | 25.3 | CVH |
| 130 | China | 110.3 | 25.1 | CVH |
| 131 | China | 110.4 | 24.2 | CVH |
| 132 | China | 110.8 | 25.7 | CVH |
| 133 | China | 109.2 | 25.0 | GBIF |
| 134 | China | 108.3 | 25.4 | GBIF |
| 135 | China | 110.4 | 24.6 | GBIF |
| 136 | China | 110.4 | 25.9 | CVH |
| 137 | China | 110.3 | 25.0 | CVH |
| 138 | China | 105.3 | 25.0 | CVH |
| 139 | China | 110.3 | 25.9 | CVH |
| 140 | China | 107.9 | 25.1 | CVH |
| 141 | China | 110.7 | 25.6 | CVH |
| 142 | China | 108.6 | 24.9 | GBIF |
| 143 | China | 109.1 | 24.8 | GBIF |
| 144 | China | 108.8 | 24.7 | GBIF |
| 145 | China | 111.6 | 24.4 | GBIF |
| 146 | China | 108.2 | 23.0 | GBIF |
| 147 | China | 110.3 | 25.1 | GBIF |
| 148 | China | 110.8 | 24.8 | GBIF |
| 149 | China | 110.7 | 22.9 | GBIF |
| 150 | China | 106.2 | 24.4 | GBIF |
| 151 | China | 110.3 | 25.0 | GBIF |
| 152 | China | 109.8 | 30.1 | CVH |
| 153 | China | 110.4 | 29.8 | CVH |
| 154 | China | 109.5 | 30.0 | CVH |
| 155 | China | 109.8 | 29.9 | CVH |
| 156 | China | 110.9 | 31.7 | CVH |
| 157 | China | 109.8 | 30.1 | CVH |
| 158 | China | 118.1 | 26.7 | CVH |
| 159 | China | 118.2 | 30.1 | CVH |
| 160 | China | 112.4 | 35.4 | CVH |
| 161 | China | 97.5 | 28.7 | CVH |
| 162 | China | 121.5 | 25.1 | CVH |
| 163 | China | 120.3 | 22.7 | CVH |
| 164 | Janan | 132.7 | 32.8 | GBIF |
| 165 | Janan | 132.7 | 33.1 | GBIF |
| 166 | Janan | 132.9 | 33.2 | GBIF |
| 167 | Janan | 133.2 | 33.2 | GBIF |
| 168 | Janan | 134.1 | 33.3 | GBIF |
| 169 | Janan | 133.0 | 33.4 | GBIF |
| 170 | Janan | 133.2 | 33.4 | GBIF |
| 171 | Janan | 133.3 | 33.5 | GBIF |
| 172 | Janan | 133.8 | 33.6 | GBIF |
| 173 | Janan | 133.3 | 33.6 | GBIF |
| 174 | Janan | 133.5 | 33.6 | GBIF |
| 175 | Janan | 133.7 | 33.6 | GBIF |
| 176 | Janan | 133.8 | 33.8 | GBIF |
| 177 | Janan | 133.4 | 33.8 | GBIF |
| 178 | Janan | 133.9 | 34.3 | GBIF |
| 179 | Janan | 134.1 | 34.4 | GBIF |
| 180 | Janan | 135.8 | 34.4 | GBIF |
| 181 | Janan | 135.7 | 34.4 | GBIF |
| 182 | Janan | 133.7 | 34.7 | GBIF |
| 183 | Janan | 134.1 | 34.7 | GBIF |
| 184 | Janan | 135.3 | 34.8 | GBIF |
| 185 | Janan | 135.1 | 34.8 | GBIF |
| 186 | Janan | 134.2 | 34.9 | GBIF |
| 187 | Janan | 134.0 | 34.9 | GBIF |
| 188 | Janan | 133.9 | 34.9 | GBIF |
| 189 | Janan | 133.8 | 34.9 | GBIF |
| 190 | Janan | 133.5 | 34.9 | GBIF |
| 191 | Janan | 134.4 | 35.0 | GBIF |
| 192 | Janan | 134.1 | 35.0 | GBIF |
| 193 | Janan | 134.3 | 35.0 | GBIF |
| 194 | Janan | 139.5 | 35.0 | GBIF |
| 195 | Janan | 134.0 | 35.0 | GBIF |
| 196 | Janan | 134.5 | 35.0 | GBIF |
| 197 | Janan | 137.3 | 35.1 | GBIF |
| 198 | Janan | 134.0 | 35.1 | GBIF |
| 199 | Janan | 133.8 | 35.1 | GBIF |
| 200 | Janan | 134.3 | 35.1 | GBIF |
| 201 | Janan | 137.2 | 35.2 | GBIF |
| 202 | Janan | 139.2 | 35.3 | GBIF |
| 203 | Janan | 139.1 | 35.3 | GBIF |
| 204 | Janan | 139.1 | 35.4 | GBIF |
| 205 | Janan | 139.3 | 35.4 | GBIF |
| 206 | Janan | 137.2 | 35.5 | GBIF |
| 207 | Janan | 139.3 | 35.5 | GBIF |
| 208 | Janan | 139.3 | 35.6 | GBIF |
| 209 | Janan | 139.2 | 35.6 | GBIF |
| 210 | Janan | 134.6 | 36.0 | GBIF |
| 211 | Janan | 139.6 | 36.0 | GBIF |
| 212 | Janan | 133.4 | 36.3 | GBIF |
| 213 | Janan | 139.6 | 36.5 | GBIF |
| 214 | Republic of Korea | 126.6 | 33.3 | GBIF |
| 215 | Republic of Korea | 126.5 | 33.3 | GBIF |
| 216 | Republic of Korea | 126.6 | 33.4 | GBIF |
| 217 | Republic of Korea | 126.5 | 34.2 | GBIF |
| 218 | Republic of Korea | 126.1 | 34.3 | GBIF |
| 219 | Republic of Korea | 126.8 | 34.4 | GBIF |
| 220 | Republic of Korea | 127.7 | 34.5 | GBIF |
| 221 | Republic of Korea | 126.6 | 34.5 | GBIF |
| 222 | Republic of Korea | 126.2 | 34.5 | GBIF |
| 223 | Republic of Korea | 125.8 | 34.6 | GBIF |
| 224 | Republic of Korea | 125.4 | 34.7 | GBIF |
| 225 | Republic of Korea | 126.4 | 34.8 | GBIF |
| 226 | Republic of Korea | 127.0 | 35.1 | GBIF |
| 227 | Republic of Korea | 129.0 | 35.2 | GBIF |
| 228 | Republic of Korea | 127.0 | 35.3 | GBIF |
| 229 | Republic of Korea | 129.2 | 35.4 | GBIF |
| 230 | Republic of Korea | 126.9 | 35.5 | GBIF |
| 231 | Republic of Korea | 126.5 | 35.6 | GBIF |
| 232 | Republic of Korea | 126.2 | 36.8 | GBIF |
| 233 | Republic of Korea | 129.4 | 37.1 | GBIF |
| 234 | Republic of Korea | 126.1 | 37.2 | GBIF |
| 235 | Nepal | 86.7 | 27.7 | GBIF |
| 236 | Nepal | 86.7 | 27.8 | GBIF |
| 237 | Nepal | 85.9 | 27.9 | GBIF |
| 238 | Nepal | 85.3 | 28.1 | GBIF |
| 239 | Nepal | 85.4 | 28.1 | GBIF |
| 240 | Nepal | 83.9 | 28.3 | GBIF |
| 241 | Nepal | 82.1 | 29.7 | GBIF |
| 242 | India | 78.4 | 30.9 | GBIF |
| 243 | India | 79.6 | 22.9 | GBIF |
| 244 | Pakistan | 73.3 | 33.3 | GBIF |
| 245 | Pakistan | 73.1 | 33.7 | GBIF |
| 246 | Pakistan | 74.1 | 33.8 | GBIF |
| 247 | Pakistan | 73.3 | 34.1 | GBIF |
| 248 | Pakistan | 73.2 | 34.2 | GBIF |
| 249 | Pakistan | 73.4 | 34.2 | GBIF |
| 250 | Pakistan | 71.6 | 34.3 | GBIF |
| 251 | Pakistan | 72.0 | 34.5 | GBIF |
| 252 | Pakistan | 72.5 | 35.2 | GBIF |
| 253 | Pakistan | 72.6 | 35.2 | GBIF |
| 254 | Pakistan | 72.7 | 35.6 | GBIF |
| 255 | Indonesia | 126.0 | 8.8 | GBIF |