

# Chloroploca asiatica gen. nov. sp. nov.

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**Table 1:** Complete list of names proposed in the current register list.

| Proposed Taxon                                       | Etymology                                                                                                                                                                                               | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Parent Taxon           | Type                                            | Registry URL                                            |
|------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|-------------------------------------------------|---------------------------------------------------------|
| Genus<br><i>Chloroploca</i>                          | [Ch.lo.ro.plo'ca]<br><b>Gr. masc. adj.</b><br><i>chlôros</i> , green;<br><b>Gr. fem. n.</b><br><i>plokê</i> , a braid,<br>a twist; <b>N.L.</b><br><b>fem. n.</b><br><i>Chloroploca</i> ,<br>green braid | The cells in the trichomes divide by diaphragmal ingrowth of the septa. In different isolates, the trichomes may be straight, wavy, or helical. Trichomes multiply by the separation of short segments or single cells from the parental trichome. The trichomes form bunches of several filaments. In the trichomes, cell length exceeds cell width three to fivefold. The distance between the sheath and the cell wall is 0.1–0.2 µm or more. The sheath has a loose fibrous structure. Finely dispersed iron sulfide may accumulate in the sheaths. Two trichomes may occupy the same sheath in rare cases. No motility of the trichomes was detected. Gram staining is variable. The cell wall structure is not typical of gram-negative bacteria. The typical gram-negative outer membrane is not revealed. The cell envelope consists of several layers.                                                                                                                                                                                                                                                                                                                                                                                                 | <i>Chloroflexaceae</i> | <i>Chloroploca asiatica</i> <sup>Ts</sup>       | <a href="https://seqco.de/i:32084">seqco.de/i:32084</a> |
| Species<br><i>Chloroploca asiatica</i> <sup>Ts</sup> | [a.si.a'ti.ca] <b>L.</b><br><b>fem. adj.</b><br><i>asiatica</i> , Asian                                                                                                                                 | The cells are elongated (0.5–0.7 × 1.0–3.0 µm), forming short filaments (trichomes) 15–30 µm long, covered with a thin mucous sheath. The cells in the trichomes divide by diaphragmal ingrowth of the septa. In different isolates, the trichomes may be straight, wavy, or helical. Trichomes multiply by the separation of short segments or single cells from the parental trichome. The trichomes form bunches of several filaments. In the trichomes, cell length exceeds cell width three to fivefold. The distance between the sheath and the cell wall is 0.1–0.2 µm or more. The sheath has a loose fibrous structure. Finely dispersed iron sulfide may accumulate in the sheaths. Two trichomes may occupy the same sheath in rare cases. No motility of the trichomes was detected. The cells contain gas vacuoles located close to the cell septa. Poly-β-hydroxybutyrate and small polyphosphate granules may be present as storage compounds. Gram staining is variable. The cell wall structure is not typical of gram-negative bacteria. The typical gram-negative outer membrane is not revealed. The cell envelope consists of several layers. Antennal photosynthetic structures (chlorosomes) are located below the cytoplasmic membrane. | <i>Chloroploca</i>     | NCBI Assembly:<br>GCF_002532075.1 <sup>Ts</sup> | <a href="https://seqco.de/i:312">seqco.de/i:312</a>     |

| Proposed Taxon | Etymology | Description                                                                                                                                                                                                                                     | Parent Taxon | Type | Registry URL |
|----------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|------|--------------|
|                |           | Bacteriochlorophyll c is the major pigment. Bacteriochlorophyll a is present in minor amount. The major carotenoid is γcarotene (at least 90%). Absorption maxima of the pigments in the cells are at 462, (515—shoulder), 742, 805, and 863 nm |              |      |              |