

# Electronema halotolerans sp. nov. and Electrothrix laxa 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
Species <i>Electrothrix laxa</i>	[la'xa] L. <b>fem. adj.</b> <i>laxa</i> , large, referring to its relatively large cell diameter compared to other cable bacteria species	Filamentous bacteria of centimeter length that inhabit the surface of marine and coastal sediment and conduct electrons from sulfide-oxidizing cells to oxygen- or nitrate-reducing cells. Gliding motility. Gram-negative, with distinct ridges running longitudinally along the filament. Cell diameters 1-6 µm. Can assimilate acetate and propionate; CO <sub>2</sub> fixation via the Wood-Ljungdahl pathway. Contains c-type cytochromes and type IV pili (PilA). Polyphosphate and polyglucose storage. Distinguishable by morphology and genome.	<i>Electrothrix</i>	NCBI Assembly: GCA_942492895.1 <sup>Ts</sup>	<a href="https://seqco.de/i:23723">seqco.de/i:23723</a>
Species <i>Electronema halotolerans</i>	[ha.lo.to'le.rans] <b>Gr. masc. n.</b> <i>hals</i> , salt, brine; L. <b>pres. part.</b> <i>tolerans</i> , tolerating; <b>N.L. part. adj.</b> <i>halotolerans</i> , salt tolerant. Due to its presence in, and genomic adaptations to, brackish/saltwater.	Filamentous bacteria of centimeter length that inhabit the surface of brackish/intertidal sediment and conduct electrons from sulfide-oxidizing cells to oxygen-reducing cells. Gram-negative, width of individual cells is 1-2 µm. Can assimilate acetate but not propionate; CO <sub>2</sub> fixation via the Wood-Ljungdahl pathway. Contains c-type cytochromes, type IV pili (PilA) and Na <sup>+</sup> antiporters. Polyphosphate and polyglucose storage. Distinguishable by morphology and genome.	<i>Electronema</i>	NCBI Assembly: GCA_942493095.1 <sup>Ts</sup>	<a href="https://seqco.de/i:23722">seqco.de/i:23722</a>