

# THOMAS NUTTALL BIOGRAPHY

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**Nuttall, Thomas (1786–1859)—explored along the Missouri River from St Louis, Missouri, to western North Dakota and discovered many now-popular cactus species.**



Born in the village of Long Preston near Crave, Yorkshire, England on 5 January 1786, Thomas Nuttall was an apprentice printer in England before migrating to North America in 1808. After meeting naturalist professor Benjamin Smith Barton (1766–1815) in Philadelphia, Pennsylvania, his intense interest in natural history, botany and zoology was born. By 1809 Barton had him collecting plants in the salt marshes of Delaware and Chesapeake Bay.

In 1810 Nuttall explored and botanized in the Great Lakes area. It was at the headquarters of John Jacob Astor's American Fur Company at Mackinac Island on Lake Huron that he learned of a western expedition planned up the Missouri River from St Louis, Missouri. Nuttall therefore went to St Louis instead of returning to Philadelphia and applied his printing skills at a local newspaper to earn a small income. In St Louis he also met fellow botanist John Bradbury (1768–1823) while waiting for the expedition to start.

In the spring of 1811 Nuttall and Bradbury joined the John Jacob Astor (1763–1848) plant and zoological expedition across the northern portion of central USA along the Missouri River from St Louis to beyond the Fort Mandan region (see map image in Thomas Nuttall Images) of North Dakota. Although the area had been botanized by Lewis and Clark in their 1804–1806 expedition across the northern portion of the newly purchased Louisiana Territory, most of their collection in the spring of 1805 was destroyed by flood waters. Therefore, many of the plants collected by Nuttall and Bradbury on the 1811 expedition were new to science. Bradbury returned to St Louis in July of that year while Nuttall remained in the area botanizing, and returned to St Louis with many plant specimens with Manuel Lisa's (1772–1820) group in October 1811.

Thomas Nuttall is credited with collecting the following cactus plant species in 1811 along the upper Missouri River:

1. *Escobaria missouriensis* (Sweet) DR Hunt 1978 [synonym *Mammillaria missouriensis* Sweet 1826]. Nuttall discovered this species near present day Pierre, South Dakota.
2. *Opuntia polyacantha* Haworth 1819. Nuttall collected this species near Fort Manuel Lisa, North Dakota (see map image). Nuttall gave the name *Cactus ferox* to this plant in Fraser's Catalogue No. 23 in 1813 but didn't officially describe it. Adrian Hardy Haworth (1768–1833) renamed it after he found that *Cactus ferox* had already been used to describe another species.
3. *Opuntia fragilis* (Nuttall) Haworth 1819 [synonym *Cactus fragilis* Nuttall 1818]. Nuttall discovered this species near Fort Manuel Lisa and gave the habitat "from the Mandans to the mountains".
4. *Escobaria vivipara* (Nuttall) Buxbaum 1951 [synonym *Cactus viviparus* Nuttall 1813]. Nuttall discovered this species near the Mandan Villages in North Dakota.

Learning of possible war between England and America, Nuttall sailed back to England by the end of 1811, taking his dried plants and seeds with him. In London he spent time organizing his large plant collection and talking to other scientists about his experiences in America. Returning to Philadelphia in 1815, he again began collecting plants in the mountains of southeastern USA, down the Mississippi River from the Ohio River and west along the Arkansas River into Oklahoma.

In 1825 Nuttall became curator of the botanical garden and professor of natural history and founded the herbarium at Harvard University, Cambridge, Massachusetts. He remained there until 1834. That year he joined a Boston, Massachusetts merchant, Nathaniel Wyeth (1802-1856), on another plant collecting expedition west through Kansas, Wyoming and Utah down the Columbia River to the west coast of Oregon. From Oregon, Nuttall sailed on to Hawaii, returning in the spring of 1835 to the American west coast for further botanizing. By late 1835 he caught a ship bound for Philadelphia.

From 1836 until 1841 Nuttall worked at the Academy of Natural Sciences in Philadelphia, making short botanizing trips and writing up the hundreds of new species he had found. He made contributions to the *Flora of North America* being prepared by Asa Gray (1810–1888) and John Torrey (1796–1873) during his time at the Academy.

Due to an uncle's death in England and a will that stipulated Thomas Nuttall spend at least six months of each year in England in order to inherit the property, he returned to England in 1842, where he spent the rest of his life writing numerous paper on geology, botany, and zoology.

Thomas Nuttall, first and foremost a field botanist, was one of the most adventurous of naturalists on the American frontier. He is credited with discovering and/or describing popular species of cacti along with species of *Echeveria*, *Sedum* and *Yucca* in America. He also described a new succulent genus *Diamorpha* in 1818 that has since become a synonym of the genus *Sedum*.

Various birds have been named in his honor: Nuttall's Woodpecker (*Picoides nuttallii*) in 1843, Yellow-billed Magpie (*Pica nuttalli*) in 1837 and Comon Poorwill (*Phalaenoptilus nuttallii*) in 1844.

Thomas Nuttall died in St Helens, Lancashire, England on 10 September 1859.

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