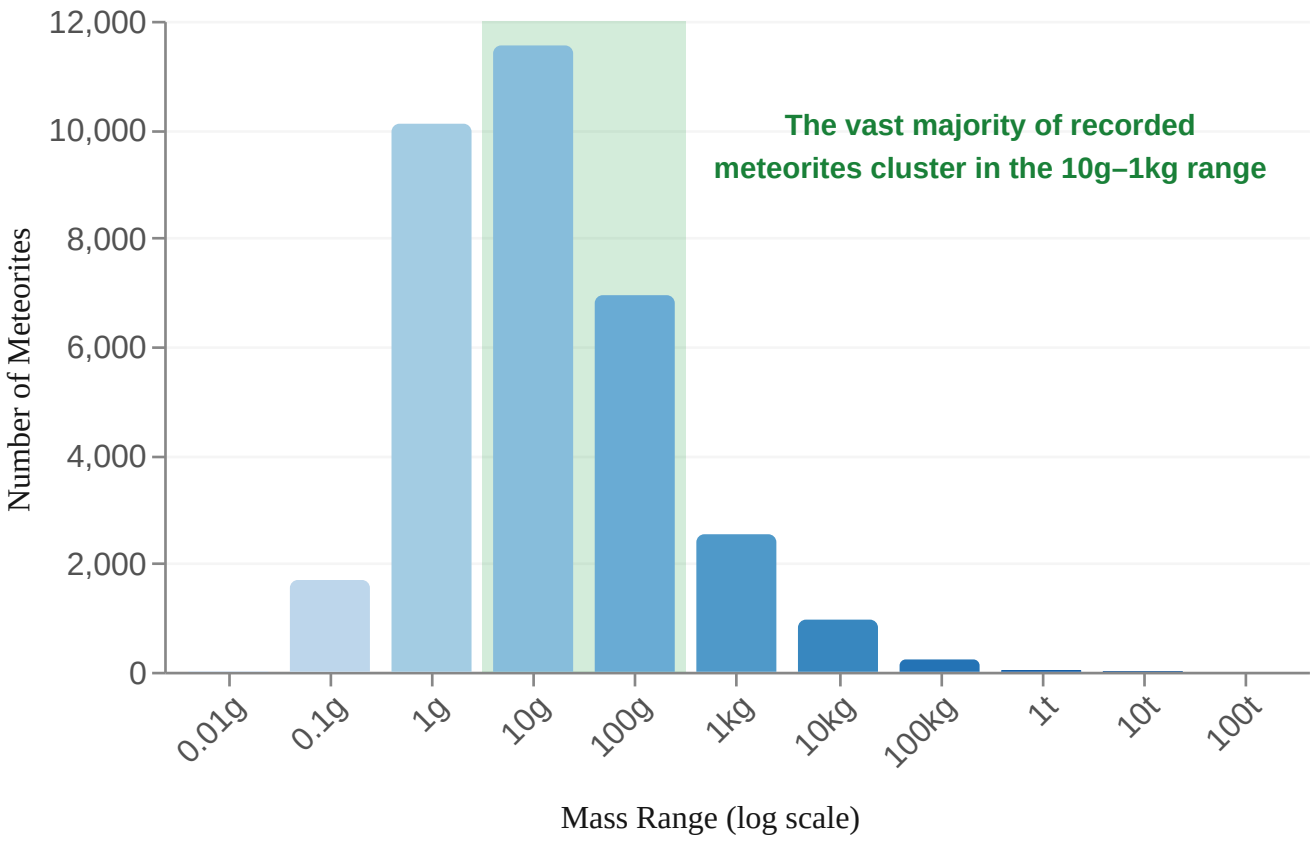
Most Meteorites Weigh Between 10 Grams and 1 Kilogram

Global meteorite landings dataset with 34,065 records spanning multiple centuries, including mass, location, and discovery type.



Distribution of meteorite masses on a logarithmic scale, highlighting the dominant 10g–1kg range

Dataset Snapshot

Global meteorite landings dataset with 34,065 records spanning multiple centuries, including mass, location, and discovery type.

Key Insight

The distribution of meteorite masses is heavily skewed toward smaller specimens, with the 10g–1kg range containing the vast majority of all recorded meteorites. While masses span an extraordinary 9 orders of magnitude—from tiny 0.01g fragments to the 60-ton Hoba meteorite—most fall within a surprisingly narrow band that's convenient for collection and study.

Supporting Chart

A histogram with logarithmic mass bins clearly reveals the concentration of meteorites in the 10g–1kg range, with a light green highlight drawing attention to this dominant region.

Why This Matters

- Informs collectors and researchers where to set expectations for typical specimen sizes
- Suggests detection/recovery bias: very small meteorites are hard to find, very large ones are exceptionally rare
- Helps museums and institutions plan storage and display for typical meteorite sizes

Confidence and Limits

The pattern is robust across 34,000+ records, though it likely reflects both natural occurrence rates and human collection biases.