Two sub-Riemannian metrics are called projectively equivalent if they have the same geodesics up to a reparameterization. In the Riemannian this equivalence problem is classical: local classification of projectively equivalent Riemannian metrics were established by Levi-Civita in 1898. We will describes our recent progress toward the generalization of this classical result to sub-Riemannian metrics. A sub-Riemannian metric $g$ is called projectively rigid if any sub-Riemannian metric which is projectively equivalent to $g$ is constantly proportional to $g$. We establish two genericity results: First, with the exception of only few case, for generic bracket-generating distributions of given rank on a connected manifold of given dimension all sub-Riemannian metrics are projectively rigid and second given a bracket-generating distribution $D$ generic sub-Riemannian metrics on $D$ are projectively rigid. (Received January 15, 2019)