We report the first observation of the 1:1 complex of glycine-water. A solid rod of glycine was impinged by the green line of a Nd:YAG laser and the vaporized molecules were seeded into a gas pulse of Ne saturated with water, forming a supersonic jet which was probed by FT-microwave spectroscopy. The water molecule has been reliably located in the complex from the analysis of several isotopomers. Glycine is in its most stable form, with a cis-carboxylic group and a NH···O= C bifurcated intramolecular hydrogen bond. The complex is stabilized by two intermolecular hydrogen bonds formed between the carbonyl group and one of the hydrogen atoms of water (O$_w$-H···O=C) and between the hydroxyl group and the electron lone pair at the oxygen atom of water (O$_w$···H-O-C).