An Indigenous whaling tradition of over 1,000 years was threatened in the 1970s when the International Whaling Commission (IWC) challenged its sustainability. Meager scientific data were consistent with the IWC assessment but at odds with the Indigenous knowledge of Inupiaq whalers. An initially fragile research collaboration among the whalers and scientists strengthened over time and ultimately demonstrated that the Inupiaq harvest of bowhead whales was, in fact, sustainable. This case history will be presented by an Inupiaq whaling captain, a marine resource manager, and a research scientist involved in the collaborative research. They will describe what did and did not work in joining scientific and Indigenous knowledge to answer national and international policy decisions. Subsistence whaling continues in Alaska today in a sustainable manner—in large part because Indigenous and scientific knowledge were brought to bear in a novel and powerful way.