Missionaries and Cannibals

Three missionaries are travelling with three cannibals when they come upon a river. They have a boat, but it can only hold two people. The river is filled with piranha, so they all must eventually cross in the boat; no one can cross the river by swimming. Any one of them can row the boat.

The problem is: should the cannibals ever outnumber the missionaries on either side of the river, the outnumbered missionaries would be in deep trouble.

How can all six get across the river safely?