In the two-stack version, Alice wins when $m+n$ is odd; otherwise Bob wins.

The first player to remove a stack will lose, since the other player will remove the remaining stack. So players will remove one coin at a time until one player is forced to remove the last coin in a stack, and will lose. When $m+n$ is even, it will be Alice who is forced to take this last coin from one of the stacks; when $m+n$ is odd, it will be Bob who is forced to take this last coin from one of the stacks.

In the 3 stack case, Alice wins. No matter what the parities of the 3 stacks, two of the stacks will have the same parity (that is, two will have an even number of coins, or two will have an odd number of coins). Removing the remaining stack leaves behind an even number of coins in two stacks. The game would then continue as above, except that it is now Bob who must make the next move, and he will lose.

For 4 stacks, the first player to remove the last coin in a stack will leave behind 3 stacks, and the other player will win. So players will remove one coin at a time until one of them is forced to remove the last coin in a stack. When the total number of coins is even, Alice will be forced to do so and lose; when the total number of coins is odd, Bob will lose.

The pattern continuous as above, by the same reasoning: for an odd number of stacks, Alice wins; for an even number of stacks, Alice wins when there is an even number of coins, and otherwise Bob wins.