**Half of World’s Sandy Beaches Could Disappear by 2100**

**到2100年，全球半数沙滩或会消失**

A new study says up to one-half of the world’s sandy beaches could disappear by 2100 because of climate change. Australia, Canada, Chile, Mexico, China and the United States would be among the hardest hit, the research shows.

一项新的研究称，受气候变化的影响，到2100年全球多达一半的沙滩可能会消失。研究显示，澳大利亚、加拿大、智利、墨西哥、中国和美国将是受影响最严重的国家。

The study was published in the journal Nature Climate Change. Michalis Vousdoukas was the lead investigator. “Touristic areas which have sandy beaches as their main selling point will probably face strong consequences,” he said.

这项研究发表在《自然气候变化》杂志上。米卡利斯·布杜卡斯是这项研究的首席研究员。他说:“以沙滩为主要卖点的旅游区可能会面临严重后果。”

Aside from economic value, beaches play an important environmental role.

除了经济价值，泳滩在自然环境中也扮演着重要角色。

“Sandy beaches are important habitats supporting a wide range of species. They also protect the coast from the effects of storms, so without sandy beaches other inland environments can be affected by the effects of waves and saltwater intrusion,” Vousdoukas added.

“沙滩是多种物种的重要栖息地。它们还能保护海岸免受风暴的袭击，所以如果没有沙滩，其他内陆环境会受到海浪和海水入侵的影响，” 布杜卡斯补充道。

Global sea levels have increased in recent decades. Major causes include melting glaciers and thermal expansion. Thermal expansion is the reaction of matter to increases in temperature. Water expands as it warms.

近几十年来，全球海平面一直在上升。主要原因包括冰川融化和热膨胀。热膨胀是物质对温度升高的反应。水变暖就会膨胀。

Researchers examined satellite images showing shoreline changes during the past thirty years. They then used these trends in two different climate change situations. One situation predicted a small reduction in greenhouse gas emissions. The other situation predicted high greenhouse gas emissions. Greenhouse gas emissions have a link to climate change.

研究人员对显示过去三十年海岸线变化的卫星图像做了调查。然后，他们将这种趋势应用于两种不同的气候变化情景中。其中一种情景是假设温室气体排放会小幅度减少。另一种情景则假设温室气体仍会大量排放。温室气体排放与气候变化息息相关。

By 2050, the researchers projected beach losses of between 13 and 15 percent. By 2100, the projected losses are from 35 to 49.5 percent, or 95,061 to 131,745 kilometers of beaches.

研究人员预测，到2050年海滩将减少13%到15%。到2100年，这一数字预计将达到35%到49.5%，或着说是95061公里到131745公里的海滩将消失。

Australia would lose more sandy shoreline than any other country, with 14,849 kilometers projected to be gone by 2100.

澳大利亚失去的沙岸线将比其他任何国家都多，预计到2100年将减少14849公里。

Canada is second in projected losses.

据预测加拿大的损失排名第二。

The United States could lose up to 5,530 kilometers.

美国可能会损失5530公里的海滩。

I’m John Russell.

约翰·拉塞尔报道。

**Half of World’s Sandy Beaches Could Disappear by 2100**

A new study says up to one-half of the world’s sandy beaches could disappear by 2100 because of climate change. Australia, Canada, Chile, Mexico, China and the United States would be among the hardest hit, the research shows.

The study was published in the journal Nature Climate Change. Michalis Vousdoukas was the lead investigator. “Touristic areas which have sandy beaches as their main selling point will probably face strong consequences,” he said.

Aside from economic value, beaches play an important environmental role.

“Sandy beaches are important habitats supporting a wide range of species. They also protect the coast from the effects of storms, so without sandy beaches other inland environments can be affected by the effects of waves and saltwater intrusion,” Vousdoukas added.

Global sea levels have increased in recent decades. Major causes include melting glaciers and thermal expansion. Thermal expansion is the reaction of matter to increases in temperature. Water expands as it warms.

Researchers examined satellite images showing shoreline changes during the past thirty years. They then used these trends in two different climate change situations. One situation predicted a small reduction in greenhouse gas emissions. The other situation predicted high greenhouse gas emissions. Greenhouse gas emissions have a link to climate change.

By 2050, the researchers projected beach losses of between 13 and 15 percent. By 2100, the projected losses are from 35 to 49.5 percent, or 95,061 to 131,745 kilometers of beaches.

Australia would lose more sandy shoreline than any other country, with 14,849 kilometers projected to be gone by 2100.

Canada is second in projected losses.

The United States could lose up to 5,530 kilometers.

I’m John Russell.