UN: Earth’s Ozone Layer Is Slowly Healing

联合国：地球的臭氧层正在缓慢愈合

A United Nations report has found that Earth's protective ozone layer is slowly healing itself.

一份联合国报告发现，地球的保护性臭氧层正在缓慢地自我修复。

Ozone is a form of oxygen. In Earth's upper atmosphere, it acts as a barrier to block harmful radiation from the sun. But closer to Earth's surface, ozone is a common pollutant. At ground level, high levels of ozone can harm people's lungs and damage plants.

臭氧是氧气的一种形式。在地球的高层大气中，它充当阻挡来自太阳的有害辐射的屏障。但在靠近地球表面的地方，臭氧是一种常见的污染物。在地面，高浓度的臭氧会伤害人的肺部并破坏植物。

Research has shown that chemical pollutants released into the atmosphere shrink the ozone layer over time. The layer exists in a part of Earth's atmosphere known as the stratosphere. The layer sits between 15 to 30 kilometers above Earth's surface. Each year, a large hole develops in the layer over Antarctica.

研究表明，随着时间的推移，释放到大气中的化学污染物会缩小臭氧层。该层存在于地球大气层的一部分，称为平流层。该层位于地球表面上方 15 至 30 公里之间。每年，南极洲上空的地层都会出现一个大洞。

In their new report, U.N. scientists say at the current rate, the ozone hole over Antarctica would be fully healed by 2066.

联合国科学家在他们的新报告中表示，按照目前的速度，到 2066 年，南极洲上空的臭氧空洞将完全修复。

Paul Newman is the co-chair of the U.N. report. It was recently presented at a meeting of the American Meteorological Society. He told The Associated Press, "In the upper stratosphere and in the ozone hole we see things getting better."

保罗·纽曼 (Paul Newman) 是联合国报告的联合主席。它最近在美国气象学会的一次会议上发表。他告诉美联社，“在平流层上层和臭氧空洞中，我们看到情况正在好转。”

However, the researchers reported the healing is happening very slowly. The worldwide average amount of ozone is estimated to return to pre-thinning levels around 2040, the report said.

然而，研究人员报告说愈合过程非常缓慢。报告称，全球平均臭氧量估计将在 2040 年左右恢复到稀薄前的水平。

A 1987 agreement called the Montreal Protocol banned a series of chemicals – mainly used in refrigerants and aerosols – believed to have reduced the thickness of the ozone layer.

一项名为《蒙特利尔议定书》的 1987 年协议禁止了一系列化学品——主要用于制冷剂和气雾剂——据信这些化学品减少了臭氧层的厚度。

The Secretary-General of the World Meteorological Organization, Petteri Taalas, commented about the report in a statement. He said past actions taken to reduce ozone damage had demonstrated the importance of limiting climate-harming substances.

世界气象组织秘书长佩特里·塔拉斯在一份声明中对这份报告发表了评论。他说，过去为减少臭氧破坏而采取的行动已经证明了限制对气候有害的物质的重要性。

Newman added that while signs of healing were reported four years ago, researchers were looking for more lasting change. The earlier recovery numbers had "solidified a lot," he said.

Newman 补充说，虽然四年前就报道了治愈的迹象，但研究人员正在寻找更持久的变化。他说，较早的恢复数字“已经巩固了很多”。

The two main chemicals that eat away at ozone are in lower levels in the atmosphere, said Newman, who is also the chief Earth scientist at NASA's Goddard Space Flight Center. The report said chlorine levels were down 11.5 percent since they reached a high in 1993. Bromine – which does a better job of eating ozone but exists at lower levels in the air – dropped 14.5 percent since reaching a high point in 1999.

纽曼说，腐蚀臭氧的两种主要化学物质在大气中含量较低，纽曼也是美国宇航局戈达德太空飞行中心的首席地球科学家。该报告称，自 1993 年达到高点以来，氯含量下降了 11.5%。溴——它能更好地吸收臭氧，但在空气中的含量较低——自 1999 年达到高点以来下降了 14.5%。

Newman said the reductions in chlorine and bromine levels came largely because of the limits set in the Montreal Protocol.

纽曼说，氯和溴含量的降低主要是因为《蒙特利尔议定书》规定的限制。

Another member of the research team was David W. Fahey, director of the U.S. National Oceanic and Atmospheric Administration's chemical sciences lab. He said the latest results show there has been a "sea change" in the way the world deals with its ozone-thinning substances.

研究小组的另一名成员是美国国家海洋和大气管理局化学科学实验室主任 David W. Fahey。他说，最新结果表明，世界处理臭氧稀释物质的方式发生了“翻天覆地的变化”。

Natural weather cycles in the Antarctic also affect ozone hole levels, which are highest in the autumn. The past few years, Newman said, the ozone hole grew a bit bigger because of that. But overall, the results demonstrate clear healing, the report said.

南极的自然天气周期也会影响臭氧空洞水平，秋季最高。纽曼说，过去几年，臭氧空洞因此变大了一点。报告称，但总的来说，结果显示出明显的治愈效果。