Animal Trafficking, Wet Markets, and Novel Pathogens

There’s a blatantly obvious trend that is staring us down, yet we are refusing to acknowledge it. What is this trend? This trend is the release of novel, zoonotic pathogens into society from poaching (illegal hunting) wildlife and selling wildlife at wet markets (markets that slaughter live animals for meat on the spot). Since 2000, we have seen zoonotic viruses such as SARS, MERS, H1N1 (swine flu), H5N1 (most recent avian flu strain), SARS-CoV-2, amongst other viruses emerge. The dangers of novel pathogens have proven that wildlife conservation is necessary and is not only a humanitarian concern, but a public health concern as well.

 Human Immunodeficiency Virus, referred to as HIV, started in non-human primates. In primates, this virus is known as Simian Immunodeficiency Virus, or SIV. SIV is thought to have made the jump to humans and HIV while the Congo was under Belgian control. Indigenous peoples of the Congo were enslaved and oppressed by the imperial authorities which led to increased poaching and black market bushmeat. The sale of bushmeat is illegal but the emergence of novel pathogens is far from over. Wet markets are very common in many countries in Asia, which is predominantly where we have seen the emergence of novel viruses in the past two decades. In the early 2000s, SARS (severe acute respiratory syndrome) emerged from a wet market in Guangzhou, China. SARS had a death rate of 15% and 774 people died globally. SARS-CoV-2, or COVID-19, also emerged from a Chinese wet market in Wuhan, China. COVID-19 has so far caused 475,000 deaths globally and has had serious social and economic consequences as well as the obvious health consequences. Both the original SARS virus and SARS-CoV-2 have been traced to bats. Bats are known to be carriers of coronaviruses and have been monitored in certain parts of the world. The goal in monitoring bats was to prevent a global pandemic, like the one we are currently experiencing, from happening.

Wildlife conservation and protection efforts could help put an end to novel zoonotic pathogens or slow the emergence of novel zoonotic pathogens. After an outbreak of avian flu in humans, the WHO started monitoring poultry and poultry populations for avian flu. Poultry are also vaccinated. Bats are not monitored by the WHO and are not considered “food” by many parts of the world. Despite this, bats are still a delicacy in China and are sold in wet markets. Wet markets are a complicated issue because they involve so many social factors. For some people, wet markets are life-sustaining. Anti-poaching laws must be enforced, and severe consequences should be imposed on those who are caught breaking the law. Afterall, poaching can lead to the emergence of a deadly pathogen (like HIV) and could potentially be life or death for some people. It is not feasible to end all wet markets or black market bushmeat sales, but there must be global policies and monitoring efforts put in place so animals sold as meat can be done so safely. Monitoring efforts will also ensure that all meat being sold was hunted legally, standardize safety and sanitary practices, and lead to a safer world for wildlife and humans.