

Regular Briefing (220518)

Subtropical Common Bluetail Moving Northward was Confirmed for the first time.

Briefed by the Director of the National Institute of Biological Resources, Kang Jae-sin, on Tue, May 17, 2022, at 10:45 AM.

Hello. My name is Kang Jae-sin.

I am here to share that we have observed a tropical and subtropical dragonfly or so-called the common bluetail, migrating North due to the climate change on the Korean peninsula.

The National Institute of Biological Resources (NIBR), an affiliate of the Ministry of Environment, monitors biodiversity with citizen scientists.

We have seen the common bluetail, which mainly inhabits tropical and subtropical regions, traveling north up to Paju, Gyeonggi-do resulting from the changing climate on the Korean peninsula.

The common bluetail is a tropical or subtropical insect that is mostly found in Africa or the Mideast. It has a blue color on the side of the torso and segment 8.

The common bluetail is a climate-sensitive biological indicator species (CBIS) known to inhabit only the southern region of South Korea before the 2000s.

NIBR researchers analyzed the findings of citizen scientists and sample results of the NIBR and scientifically proved that the common bluetails are moving northwards for the first time in Korea.

The distribution of common bluetails has constantly moved northward for the past 40 years. They were generally spotted in the southern region for 20 years in the 1980s, but they began to go north after the 2000s. In 2020, they first appeared in Paju, Gyeonggi-do, located 37.7 degrees North, and have been consistently observed since then.

We modeled the location of the common bluetails using the environmental factors and climate

change scenarios. They are expected to be sighted in Goseong, Gangwon-do, at least North of 38 degrees, around 2070.

Since 2011, NIBR has operated the "Korea Biodiversity Observation Network" (K-BON) to study and understand the changes in biodiversity species distribution owing to climate change.

As the name suggests, K-BON is a network that monitors Korea's biodiversity. GEO-BON observes the world's biodiversity.

J-BON in Japan and K-BON in Korea are two examples of national-level systems. K-BON is a research group in that NIBR collaborates with a group of citizen scientists.

K-BON is established to efficiently manage biodiversity and species in the face of climate change, share information, and strengthen connectivity. A group of citizens in their 10s to 70s interested in living organisms and observing biodiversity participates in K-BON.

For the past five years, 100 citizen scientists, who participate in the network, have recorded and shared their observations of over 110,000 species nationwide via Naturing. Naturing is a private citizen science platform where citizens contribute to sharing species they have observed and recorded in real-time.

Experts, including NIBR researchers, validate the information collected by the citizen scientists. By combining the samples and other information, they also uncover the scientific significance of that information.

The data collected by citizen scientists is becoming critical for understanding and managing living creatures.

NIBR expands its support for the youth and continues to communicate with them. Our K-BON Junior program helps the youth become citizen scientists at the semi-expert level and develop an interest in organisms at a young age.

This concludes the announcement.