

## For a comfortable trip and the safety in fir-spruce forest at the foot of Mt. Muka

In the fir-spruce forest at the foot of Mt. Muka, we recommend the following things, in particular for clothes.

### 1. Rain wear (e.g., Gore-Tex) for the cover of legs

Since we should step over several wet fallen logs with moss on the trail, we recommend cover the pants or trousers with rain wear (e.g., Gore-Tex). We also recommend appropriate shoes for field walking.



Fallen logs on the trail



Stepping over a wet fallen log with mosses



Inclined part of the trail



Muddy part of the trail

### 2. Long-sleeved shirts and long pants

In the forest, there are several insects and ticks that attack human beings. For the avoidance of the attack, we strongly recommend that the participants do not expose the skin.

**It is important to check the existence of the tick (*Ixodes* sp.) after the walking.** In this summer in Hokkaido, a person attacked by a tick was killed by tick-borne encephalitis (a disease on the brain and nerves) carried by the tick. This was the first example in Japan! The "mouth" of the tick is almost impossible to pull out because they secrete chemicals to fix their "mouth."



A walking tick on the rain wear



Deeply biting tick into the skin

### 3. No wearing of black clothes

#### **Black clothes tend to be attacked by wasp and gnats that suck bloods.**

At a field survey in 2009 in the forest stand, a graduate student who wore black overalls was attacked by many wasps (*Vespula* sp.).

The wasps are small and black-colored with cream-colored lines. They build a multi-layered nest under the ground. Since they prefer the meats to the nectar of flowers, they sometimes approach the human mouth by tracing the smell of the meats! The damage by the attack becomes severe one or two days after the attack. Keeping still is important if they walk on the face.

Information about one of the common *Vespula* species (*V. flaviceps*) is available from the following page:

[https://en.wikipedia.org/wiki/Vespula\\_flaviceps](https://en.wikipedia.org/wiki/Vespula_flaviceps)