

Survey Protocol for Adult Karner Blue Butterflies

The Karner blue butterfly is Federally endangered. The Endangered Species Act prohibits “taking” without authorization, usually in the form of a Permit from the US Fish and Wildlife Service. Take is defined in the Act to include harassment--the worrying, annoying, exhausting, or impeding of another, especially through continued or repeated action. In the case of the Karner blue butterfly, we are sometimes unsure of the effect of our actions on individual butterflies. We know that butterflies have a higher risk of predation if they have recently been disturbed or flushed from a perch. Therefore adopting a conservative approach in this regard, the definition of harassment becomes “action on our part that elicits a response reaction on the part of the butterfly.” Actual harm to the butterfly is assumed rather than demonstrated.

Yet, we inevitably come into close contact with the butterfly in the process of surveying for the benefit of this species. Population and habitat surveys, animal behavior studies, and food preference surveys all result in our close proximity to the butterfly. Its characteristic of slow and short flights make it easy for us to overtake individual butterflies on foot and sometimes difficult for us to recognize an escape response on the part of the butterfly. The following guidelines recommend bounds on survey activities so the opportunity for deliberate or inadvertent harassment and other forms of take can be avoided and there is no need for a Permit assuming “hands off” surveying.

- Do not conduct surveys for butterflies when the temperature is less than 60 degrees F., wind speed exceeds 15 mph, or there is heavy fog, drizzle, or rain.
- Do not capture or attempt to capture Karner blue butterflies without specific authorization. Do not chase butterflies.
- Do not search for butterflies unless briefed in appropriate behavior around the butterfly.
- When possible, site assessments to document vegetative condition and evaluate the need for population surveys should be done when adult butterflies are not present.
- Avoid stepping on or damaging lupine (host plant) and other nectar plants.
- Move slowly and stop periodically to look around when surveying for butterflies, especially when near lupine. Surveyors standing still are less apt to damage habitat and more likely to see moving butterflies.
- Approach a perched butterfly only as close as needed (5-6 feet) to achieve your objective. Move slowly, make no sudden moves, and minimize hand and upper body movement. Stop moving if a butterfly approaches you. Movement on your part is more likely to elicit an escape response than your motionless presence.
- When taking a voucher photograph, wait until the butterfly is resting. Place the camera only as close as needed to record distinguishing characteristics. Promptly take the photograph and move away using care to avoid disturbing the butterfly.
- When moving through habitat, do not permit your shadow to closely approach or fall on perched butterflies that you observe. The approach of your shadow has a rallying effect on butterflies.