

PRIMARY USE: Improve habitat for aquatic plants and animals, and contribute to food web dynamics.
ADDITIONAL USES: Minimize bank erosion.

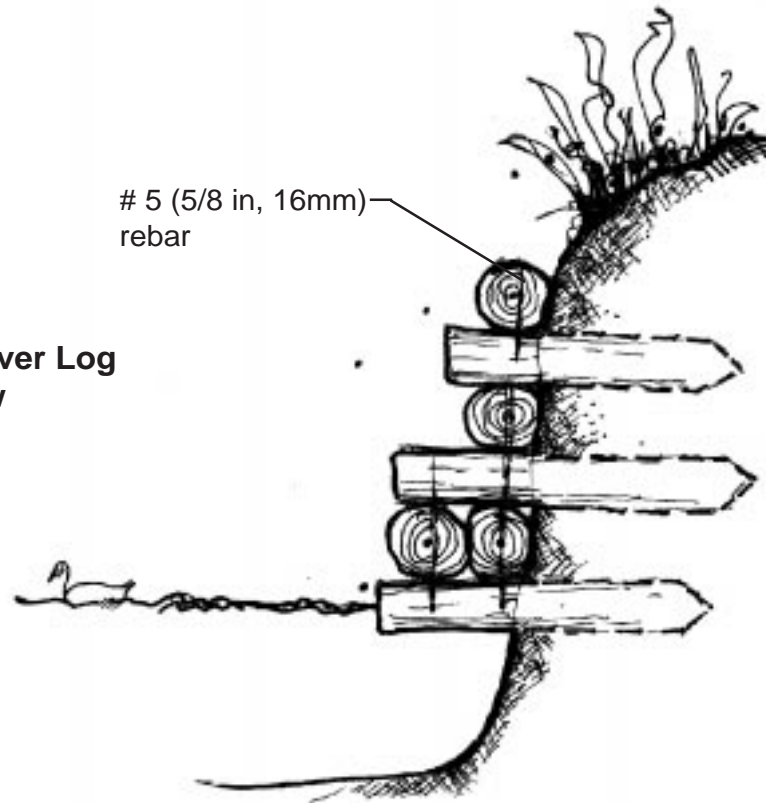
LUNKER STRUCTURE

What is it? This is a technique in which cells are constructed of heavy wooden planks and blocks which are embedded into the toe of the stream bank at channel bed level.

Purpose

Lunker structures successfully combine toe protection to curb bank erosion with providing needed fish cover.

**Bank Crib with Cover Log
Section View**



Limitations

Lunker structures are not recommended for streams subject to severe flooding.

Materials

Local sources of hardwood logs, rough cut lumber, and rock for riprap toe if necessary.

Installation

Minimize disturbance to the stream and adjoining areas by scheduling the work when it will interrupt aquatic plants and animals the least. Construct the lunker cells in 8 ft (2.4 m) sections using 2 ft (0.6 m) hardwood planks, 6-8 in (152-203 mm) diameter hardwood blocks and 5 ft (1.5 m) lengths of 5/8 in (16 mm) reinforcing bars. Place the unit in the prepared toe of bank area. Cover with a layer of rock riprap sized to meet the stream conditions. Vegetate the exposed slope using plantings and where the slopes are more heavily stressed, apply brush matting, fascines, etc.

Source: Stream Corridor Restoration Handbook, USDA.

LUNKER STRUCTURE

Additional Drawings:



**Bank Crib
Perspective View**