

Wyoming Game and Fish appraise mountain pine beetles

Written by Gib Mathers

Thursday, 10 December 2009

The Wyoming Game and Fish Department is taking the mountain pine beetle epidemic seriously and has written a report outlining the insect's impact to wildlife and fishing.

Although beetle infestations are a natural part of the forest cycle, outbreaks of this magnitude have not been witnessed in recorded history, the report said.

From 1996 to 2008, more than 1.3 million acres of conifers were hit by pine beetles in the Bighorn, Shoshone, Medicine Bow and Black Hills national forests. The Medicine Bow Forest has been hit the hardest, with 460,300 acres impacted by beetles, the report said.

Of the 2.4 million acres comprising the Shoshone Forest, 600,000 acres are affected by pine beetles, said Shoshone Public Affairs Officer Susan Douglas.

Treatment usually is small scale, and so far, no one has devised a cost-effective formula to terminate the large-scale invasion. Only nature seems able to effectively cope with the beetles, whether the bugs kill all their hosts or a brutally cold winter — unheard of in the last decade — freezes beetle eggs.

Potential impacts to hunting

Ramifications to hunting are the Game and Fish Department's chief concerns, the report said.

The department can do little to battle the beetles, but it can adjust game population objectives, said Game and Fish Wildlife Supervisor Gary Brown in Cody.

Heavily-impacted areas have the potential to impair access and so radically limit hunting opportunities, which in turn would increase hunting pressure in areas free of beetles or the blighted trees.

Hunters' success may decline if they cannot access specific areas, and hunters may simply choose not to hunt.

Hunters may opt for lower elevation hunting areas, where limited quota often is the norm, rather than national forests where general licenses are predominant.

If the number of hunters declines in specific areas, that may hurt local economies, the report said.

Changes in hunting could lead to game increases above department population objectives. Meanwhile, eradication of pine could increase grazing and aspen cover for deer and elk.

On the flip-side, if large-scale fires rage through patches of dead and dying trees, the land's carrying capacity may lessen, thus population objectives will require revisiting.

Furthermore, heavy timber provides big game thermal cover, the report said. Ungulates can hole up in trees where winter temperatures are more moderate and thus burn fewer calories from summer fat reserves to maintain their body heat, Brown said.

Moose are dependent on heavy timber too. Moose, with their dark coats, repair to the shade of deep timber in the summer to expend less energy staying cool. Moose also rely on fir trees for winter food. "So it serves two sources," Brown said.

If forest disappears, moose will need to find travel routes to existing timber stands, safe from roads and trails, the report

said.

In British Columbia, moose increased following a pine beetle epidemic, but that has not been noted in Yellowstone National Park since the fires of 1988, said the report.

Either way, the department may have to adapt new management strategies, the report said.

Blue grouse numbers may ebb, because the birds are dependent on lodgepole pine for food and habitat in the winter. Non-game animals may feel the pinch as well.

Squirrels without habitat could suffer, along with pine martins, which need old-growth pine for habitat and to prey on squirrels, Brown said.

If understory thrives due to fewer trees, snowshoe hares may increase along with lynx, which hunt hares, the report said.

Short term, woodpeckers will benefit because the birds feed on beetle-infested trees, Brown said.

Grizzly bears also are affected by the pine beetle infestation.

An estimated 6 million limber and white pine are dead. While not entirely dependent on white pine seeds, this loss may cause grizzlies to seek other sustenance, increasing the risk of bear-human conflicts.

Potential impacts to fishing

Pine beetles could have both positive and negative impacts to angling, the report said.

An angler may be hampered by fallen timber obstructing a favorite hole, but those snags could aid the trout hiding in those pockets, the report said.

Fallen trees could block trail or road access for anglers and fish stocking, and federal or state agency-managed lands may be closed due to liability issues from potential falling trees, the report said.

If trees are lost, the outcome could be streams sans shade warming. So, fish habitat can be lost.

Beetle-triggered deforestation could increase runoff, thus instigating more debris entering streams and more high, fast water, the report said.

Complete removal of trees in sub-alpine areas could increase spring water flow from 40 to 50 percent. More runoff can lead to erosion, muddying the waters and reducing native fish populations. Changes in runoff and sediment may usher in non-native cutthroat trout competitors such as brook and rainbow trout, the report said.