

UNITED STATES
DEPARTMENT OF THE INTERIOR

SEP 3 1940

NATIONAL PARK SERVICE

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REPORT # 1.

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WILDLIFE, FORESTS, STREAMS etc.

RANGER
ENGINEER
LANDSCAPE
FORESTRY
FILE
MISC.

Things effecting or being effected by conditions either
natural or exotic.

- 1, Most striking is the effect of erosion control and natural
reseeding of formerly cultivated areas on stream conditions.
Streams where there are large areas of cultivated lands
on the drainage basins get so muddy that they are wholly
unsuited for the better class of game fish while those whose
drainage basins have been protected for the most part for the
last few years are showing a decided improvement.

The unmolested growth of plants and trees not only retard
erosion but tend to hold back the excessive flow of water caused
by heavy rains. The most striking example of the effectiveness of
reforestation and erosion control is to be found at present in
the Morman's River section. The north fork while only under
partial protection will during heavy rains rise slowly and remain
quite clear except during a much prolonged and exceedingly heavy
storm. The south fork becomes muddy and the flow of water fluctu-
ates hourly and is constantly in a condition unfit for trout,
(either too muddy too low too warm or rushing along forming
trash and log jams, changing channels etc.)

Big Run water flow has changed considerably as has Madison
Paine Run and Doyles river during the 32 months I have been
here and I have no doubt that as striking improvements in the
other sections of the park have been effected.

There is a fair supply of trout in Paine Run, and Big Run.
Big Run also has a nice amount of bass. Ivy branch is well
stocked with trout and further planting is excessive and means
that the planted stock will not be able to compete with the
natives of the stream and thus will of course be the victims
of the fishermen visiting this stream or die of starvation.

Madison Run can now stand a fair amount of stocking, say
2,000 of legal size March 1st. to March 15th. 1941.

Hughes River an excellent trout stream should have at least
two thousand in each of two main branches. Plant to be made
not later than march 1941. Hawksbill Creek, South Dist. is not
protected from erosion enough as yet to amount to anything as
a trout stream though a few seem to survive. There are not enough
deep holes or slow water for catfish and while bass might in
small numbers and small sizes have a fair amount of success at
present, much more land in the drainage basin of this stream
will have to be protected from erosion (and that means acquisition
by the Park Service first) before trout will be of any benefit.

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Most of the streams have been so changed during the ripping floods which have swept unhampered down their beds for many years that considerable "Stream Improvement" work would be of great benefit.

The protest against this is answered by the fact that the present conditions of the stream beds have been brought about by unnatural conditions and such improvement as suggested is to bring about a more natural condition in the shortest possible time.

The area that seems to have the greatest deer population also unfortunately is rather heavily infested by ticks while the boundary is lined by residents who own numerous hounds over which they seemingly exercise slight control.

The Turkey population seems to have a wider range than the deer in the southern section of this park and the indications are that more than fifty percent of this ranger is outside the park. If any of the many reports are true certain residents of these outside areas are not only aware of the extended range of these turkeys but are taking advantage of every opportunity to diminish their numbers.

Artificial feeding might bring about an improvement in this condition for a time but a worse condition might be the final outcome when this feeding was stopped.

Quail and grouse are increasing rapidly in one or two sections however the natural quota can never be reached without considerable artificial propagation for a time. In fact all feathered life is exceptionaly few for the amount of forests here and it is very evident that some very extraordinary cause must be the reason.

Hawks and owls are not plentiful, foxes and wildcats way below normal, most of the shooting has been stopped, domestic cats nearly exterminated, climatic conditions not at all severe considering, and as yet no evidence of diseases has been found. We now reach the crow, snake and rodent stage for consideration. Of the snake and rodent population I would like to suggest a more careful survey by all rangers on the numbers and kinds noted and just what they are feeding on. Chipmunks and rats take birds eggs and young birds while the best rodent eater among the snakes is the most persecuted i.e. the rattlesnake. The black snake while a good rodent catcher for mice is not so strong for grown chipmunks and rats and is besides a notorious bird-egg eater. Weasels and skunks, the first for all birds up to and including full grown grouse and turkeys and the latter for eggs and young of ground nesting birds should be checked as to numbers and must be considered when the proposition of constructing quail feeding shelters and feeding grounds for turkeys is brought up. There are too many angles to be discussed and considered in this relation to write about, but the fact remains that something will have to be done to bring about the return of a normal number of birds and every person connected with the park service here will have to take an interest and active part in securing data.

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There seems to be an extraordinary heavy crop of chestnuts this year on the few remaining trees of sufficient size to bear.

Whether this is an indication that the trees are becoming somewhat inured or immune to the blight or is merely a dying effort to maintain the species as is so often noted in plant life has not been determined.

All trees have an exceedingly heavy crop of leaves and in all have had a good growing year. Considerable heart rot is noted most of it due to the easy mode of entrance provided by the stumps of logging operations of many years past and the fact that many of our trees today are sprouts from the stumps of trees utilized otherwise many years ago.

The attempt to eradicate the "white pine blister rust" continues and I am wondering whether or not the eradication of one or more species of plants in order to preserve another is altogether in keeping with the principals involved especially those as propounded by the "WildLife" division.

In that line we might go after the apple trees in the park in order to help protect the juniper, on the other hand the Horticulturists round about would no doubt like to see us as well as all the forests eradicate the junipers in order to protect their apple orchards.

Un fortunately all species of cretaceous are hosts to this disease and we have lots of them so it looks as though, if it comes to a "show-down" and something has to be eradicated it will be the juniper.

Of paramount interest to everyone concerned with forests at all is the eradication of FIRE. Looked at from a scientific standpoint, all fires in this park are exotic, at least much less than 1 percent are caused by lightening, trees rubbing together or spontaneous combustion. Man is the chief vector. In planning how to best keep fires from our forests or to suppress those that do get started one immediately meets face to face with an impassable wall of delay in getting started to a fire after one gets going. Of the blocks making up this wall is, first, detection (several angles), Communication (damnable inefficient), Transportation (delayed), Routes (being obliterated), Suppression personnel (changing) and Interest (centered more on other projects)

I believe that the most efficient means to handle this situation is to, in making up the organization and planning the setup, ~~XXXX~~ draw a line (very arbitrarily if necessary) to cover the most of the areas concerned in ratio of their importance.

Until hampered detection, communication, transportation, routes and such desperately limited funds are done away with, practically every fire we have is going to be excessive in size, time and man hours, before it is out and should we loose the C O C and have to rely on regular force or outside labor the cost will be ~~XXXX~~ astounding to say the least. I know of at least one case where well over \$30,000.00 were expended in stopping a fire that managed to reach a size of 65 acres. and this was due chiefly to the lack of a set of initial suppression force.

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In planning a protection force I believe it best to organize a small force of permanent nature and have them do nothing else but keep in training and be on hand any time of the day or night for immediate duty. We can do this now with the OOO and as they are eliminated fill the ranks with permanent park employees.

This of course will necessarily have to include equipment maintenance men, road maintenance men, telephone maintenance men and all other of permanent or semi-permanent nature and this of course means that some arrangement with the foregoing organizations will have to be worked out whereby their largest forces will be on hand during the fire seasons.

Ample detection (look-outs) A flying squad fully equipped with tools, food, transportation etc. in constant contact with the detection day and night plus the ranger and other protection and educational activities should materially decrease the size and damage done by fires and prevent many others.

In trying to formulate a plan to utilize outside help, especially in detection one finds a worse condition in relation to communication facilities than we have in the park and that coupled with several other items of which ignorance and antagonistic ideas are no small items just about completes the elimination of such an idea from my mind.

One last item, I dislike to see a road eliminated where it means a 20 mile ride and a three mile walk to reach a fire that would ~~be~~ if this road were maintained be within a four mile ride of the suppression force base. On the other hand I believe ~~many~~ of the old roads should be closed at the Park boundary and many of them permanently blocked or obliterated at the park boundary though maintained from the drive to the boundary. This would not only aid materially in the suppression of fires and other protection but would conform very nicely with the definition of a National Park as "an area set aside".

Submitted this 1st. day of Sept, 1940.

Yours sincerely,

Chas. L. Croghan
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Dist. Ranger.