Project 7 Progress Report July 2003 from Tigris

The fire fighting team has had a very busy autumn fire season in 2002 and spring season in 2003. The weather was dry, there was little snow during winter and there was often much wind, ideal circumstances for fires. The five-member mobile fire-fighting team of Phoenix/Tigris is based at the Inspection Tiger anti-poaching team base camp in Slavianka, the capital of Khasan. They can be reached 24 hours per day and have been tackling as many fires as they can; but the team is small and can only fight one fire at the time. During the 2002/2003 season there were often several fires raging at the same time from which the team had to choose. They could not stop all of these, but they did managed to save the largest protected area under threat, the Barsovy Zakaznik (which is important for Amur leopards as well as tigers).

Background information

The fire seasons are from the end of October to December and March to May. The fires start when the autumn rains stop, the leaves have fallen from the trees, and the vegetation covering fields and the forest floors has dried out and turned brown. The fires that start in late autumn stop when there is a snow cover in winter (in some years with little fires may continue all winter). The second fire season starts when snow melts in March and ends when rain falls and/or the fields and forests become green by end of April/May. There are large differences in the length and intensities of the fire seasons from year to year depending on the weather (amount of rain/snow and wind).

Human induced fires are a main threat to the survival of the Amur leopard. Some fires are started for a particular purpose, such as:

1. improving fertility for grazing,
2. stimulating fern growth (young ferns form a popular dish in Primorski Krai that is sold in shops and served in restaurants),
3. killing ticks and other insects
4. making scrap metal items visible so that they can be easily collected
5. culling vegetation along train tracks

However, strong incentives for starting fires are absent in most cases; setting fire to fields is to a large extent simply a habit.

At the nearby Vladivostok Institute of Geography, satellite photographs are being examined to determin the impact and patterns of fires in SW Primorye since 1992.

These images will provide:

1. A map of the area, divided into several categories according to frequency of fires during the last 11 years.

2. Understanding of the relationship between fire-frequency and habitat type/degradation.

3. Indications of the effectiveness (and comparison) of fire prevention and fighting in/by:
   - the mobile team.
   - the zapavednik, 2 zakazniks, hunting leases and the corridor behind border fence.

4. Priorities for fire prevention and fighting.

5. Improved understanding of the complicated relations between fires, human presence, land-use, roads, habitat type and habitat changes, ungulate density and leopard density.

6. Insight into the accuracy of official forest data. The official data suggest that the forest cover has increased and that forest composition is developing towards what is typical for more mature and undisturbed forests, thanks to a ban on commercial logging in this area. However, offical information may be more positive than reality, in order to suggest that the forestry service is successfully protecting the state forests in this area against fires.

7. Help in understanding why leopards avoid the savanah type habitat in Khasan that is the result of forest fires and that looks so similar to their favorite habitat in Africa.