THE HISTORY OF INTRODUCTIONS OF MOUFLON SHEEP (*Ovis ammon musimon*, Schreber 1782) IN CENTRAL AND EASTERN EUROPE, AND THE DEVELOPMENT AND MANAGEMENT OF THESE WILD SHEEP POPULATIONS.

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ABSTRACT

The first important transplant and release of mouflon sheep on the mainland of Europe took place during the second half of the 19th century, when Karoly Forgach released these wild sheep in the Tribec Mountains of Czechoslovakia (Uloth, 1972, 1976, 1979). Czechoslovakia has more than half of the European stock of mouflon, which in the eastern half of that continent increased from 10,000 to 27,500 in the years 1968 to 1978. Economic considerations for mouflon management are meat production per given area of habitat (kg wild meat per 100 ha of forest), as well as the trophy quality obtained by rams, which is revealed in the scores obtained in periodically held international hunting exhibitions. Record scores reached by mouflon trophies improved from 236.95 C.I.C. points in Budapest, 1971, to 240.65 C.I.C. points in Plovdiv, 1981. Both these exceptional trophies came from Czechoslovakia. Conditions for the production of good trophies include the proper choice of suitable habitat for these sheep when introductions are made, a selective harvest of all age classes and both sexes to maintain a desired population structure, and lastly, a minimum of age for the harvest of rams with good horn development of 8 years.

Initial comparisons of trophies of mouflon rams from Europe with those originating from sheep introduced to North America revealed that the European mouflon in general have a greater mean horn length, while those in North America have a greater mean horn circumference at the horn base.

INTRODUCTION

Little is presently known about the origin of the mouflon sheep on the
Mediterranean Islands of Corsica and Sardinia, nor whether these sheep were truly "wild" or "feral domestic" sheep, as suggested by certain experts (Poplin, 1979). It is also not known when the first transplants to the mainland of Europe took place.

In this paper, a brief review is given of the history of documented transplants to the countries of central and eastern Europe, and of the development and management of these introduced mouflon herds (Ovis ammon musimon, Schreber, 1982).

RESULTS

Historically speaking, the mouflon populations in Czechoslovakia and Hungary were created through transplants near the end of the 19th century, while those of Poland, the German Democratic Republic, Romania, Yugoslavia and Bulgaria came into being during the first half of the present century. Transplants of significance to above countries were made according to the following schedule: 9 mouflons to the Tribec Mountains, Jelenec (Czechoslovakia) in 1868 and 1883, 5 mouflons to the Harz Mountains (German Democratic Republic) in 1906, and 13 mouflons to the Krim Peninsula (U.S.S.R.) in 1910 and 1913 (Uloth, 1972, 1976, 1979). The first breeding population in Bulgaria was established at the wildlife station at Pamarca, to which mouflon were introduced repeatedly from herds in Czechoslovakia and Hungary (Dragoer, 1978).

Table 1: Development of mouflon populations in the German Democratic Republic (after Prien, Peukert and Telle, 1982).

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Populations</th>
<th>Total Number of Mouflon</th>
</tr>
</thead>
<tbody>
<tr>
<td>1931</td>
<td>8</td>
<td>about 240</td>
</tr>
<tr>
<td>1934</td>
<td>17</td>
<td>about 670</td>
</tr>
<tr>
<td>1939</td>
<td>43</td>
<td>2,360</td>
</tr>
<tr>
<td>1955</td>
<td>20</td>
<td>750</td>
</tr>
<tr>
<td>1976</td>
<td>54</td>
<td>3,680</td>
</tr>
</tbody>
</table>

Table 2. Development of mouflon populations in countries in Central and Eastern Europe.

<table>
<thead>
<tr>
<th>Country</th>
<th>Total Number of Mouflon Sheep</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1968</td>
</tr>
<tr>
<td>Czechoslovakia</td>
<td>5,000</td>
</tr>
<tr>
<td>Hungary</td>
<td>2,000</td>
</tr>
<tr>
<td>German Democratic Republic</td>
<td>1,500</td>
</tr>
<tr>
<td>Yugoslavia</td>
<td>200</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>50</td>
</tr>
<tr>
<td>Romania</td>
<td>150</td>
</tr>
<tr>
<td>U.S.S.R.</td>
<td>500</td>
</tr>
<tr>
<td>Poland</td>
<td>180</td>
</tr>
<tr>
<td></td>
<td>1978</td>
</tr>
<tr>
<td>Czechoslovakia</td>
<td>14,370</td>
</tr>
<tr>
<td>Hungary</td>
<td>5,000</td>
</tr>
<tr>
<td>German Democratic Republic</td>
<td>3,000</td>
</tr>
<tr>
<td>Yugoslavia</td>
<td>2,732</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>1,300</td>
</tr>
<tr>
<td>Romania</td>
<td>600</td>
</tr>
<tr>
<td>U.S.S.R.</td>
<td>500</td>
</tr>
<tr>
<td>Poland</td>
<td>200</td>
</tr>
</tbody>
</table>
The introduced herds, in general, expanded rapidly except for temporary declines as a result of the War. In Table 1, the development of the mouflon population is given for the German Democratic Republic.

The development of the mouflon population in all the countries under discussion here are given by comparing the 1968 estimates (Uloth, 1976, 1979) with the 1978 estimates (Lochman, 1979).

Important considerations for the management of mouflon sheep in Europe are their meat production, expressed as "kg of meat produced per 100 ha of wooded habitat", and the trophy quality of the rams. During the 1970's, the meat production of mouflon with 25,940 kg amounted to only 0.03% compared to that of the other wild ungulates (Dezhskin, 1983). However, for the German Democratic Republic, Siefke (1971) ranked the importance of the mouflon as a wild meat producer second only to the fallow deer as follows: Fallow deer - Mouflon - Red deer - Roe deer. The management of the mouflon for trophy quality in central and eastern Europe was undoubtedly a success. This is obvious from Table 3, where we have listed the trophy quality achieved, expressed as numbers of heads awarded gold medals during the International Trophy Exhibition in Budapest 1971 and in Plovdiv 1981 for 5 countries (Prien, Peukert and Telle, 1982).

Table 3. Improvement of trophy quality of mouflon rams taken in five countries of central and eastern Europe, expressed as numbers of heads awarded gold medals.

<table>
<thead>
<tr>
<th>Country</th>
<th>International Trophy Exhibition</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Budapest, 1971</td>
</tr>
<tr>
<td>Czechoslovakia</td>
<td>70</td>
</tr>
<tr>
<td>German Democratic Republic</td>
<td>25</td>
</tr>
<tr>
<td>Yugoslavia</td>
<td>11</td>
</tr>
<tr>
<td>Hungary</td>
<td>7</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td><strong>129</strong></td>
</tr>
</tbody>
</table>

The top trophies in both international shows came from Czechoslovakia and reached 236,95 (1971) and 240,95 (1981) C.I.C. points respectively. Mouflon sheep were also introduced to North America, primarily Texas, and their development is of considerable interest to wild sheep experts. An initial comparison between top trophies of Europe (Botev et al, 1981), with those of North America (Temple, 1982), lead us to conclude that European rams have a greater mean horn length, while those from North America have a greater basal circumference of the horns (Uloth, in press).

LITERATURE CITED

Dezhskin, V. V.  Hunting and hunting management of the world. Izd. Lesnaja prom-st', Moskva. 357 pp. (In Russian)


Siefke, A. 1971. The hunting-economic productivity of the hoofed game in the GDR. Beiträge zur Jagd-u. Wildforschung VII: 29-44. (In German)

