

Winter Activity and Mobility of Ibex and Chamois in Response to Snow and Weather Conditions

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Alpine Ibex and Chamois were observed from a fix position, that allowed scanning 1.2 km² of suited winter habitat ranging from 1500 m asl below the timberline to 2300 m asl. In 30' intervals instantaneous position, activity, and geomorphologic properties at location were recorded for all visible solitary and groups of ibex and chamois. Moreover, focal observations of randomly selected animals were used to determine activity budgets and snow penetration depths. An automatic station at the site measured standard meteorological parameters, whereas snow properties such as depth distribution and standardized penetration depth were recorded manually. In general, many activity and mobility parameters were found to correlate with 3-day sum of new snow, local avalanche danger, and wind speed, while they did not correlate with snow depth and only in some cases with air temperature. Averaged over all snow and weather regimes chamois and ibex both managed to spend about half of their active time upon open vegetation. But during the rest of the time, ibex were primarily observed in rocky terrain while chamois mostly roamed upon snow. That is why ibex were rarely seen to considerably sink into snow, which was not uncommon to happen to chamois. Moreover, chamois were rated to spent about 20% of their time upon snow in areas with considerable avalanche risk. Ibex, in contrast, avoided such areas almost completely.