BOWHUNTING research

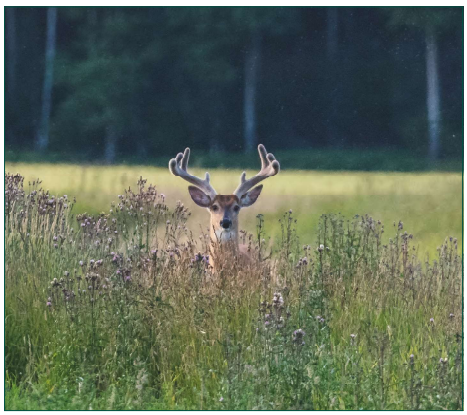
Finnish Bowhunters' Association

The bowhunting research collected data on the use of two different types of hunting equipment, the rifle and the hunting bow, in white-tailed deer hunting situations.

The project compares the observations made on the basis of the data collected on hunting situations with different hunting weapons and aims to form a clear picture of the differences and similarities between the hunting weapons in terms of their use and game animal behaviour.

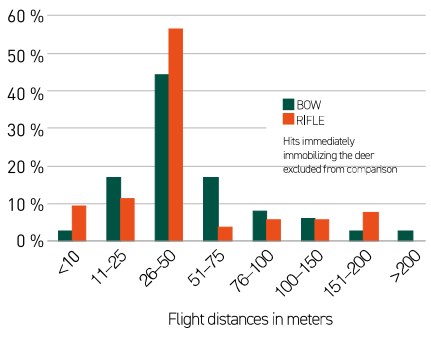
The goal of the project was to collect data on 100 white-tailed deer hunted with a rifle and 100 white-tailed deer hunted with a bow.

The project involved approximately 100 volunteering hunters collecting the information.



In addition to data collected on the hunting situation - shooting distance, game animal specifications, shot placement etc - information was also collected on the hunting weapons used, blood samples were collected from the harvested deer and pH values were measured on the carcasses. The project serves as a sub-study in a doctoral thesis by ELL Mikaela Sauvala focusing on meat hygiene in game animals.

Flight distance breakdown by weapon type



Draw weights in hunting bows, %

50–60 lbs	20,93
60–70 lbs	65,12
over 70 lbs	13,95

Average shot distance, meters

Rifle	63
Bow	17,56

Kinetic energy of bow-arrow-combinations, %

40–50 J	2,38
50–60 J	7,14
60–70 J	7,14
70–80 J	11,90
80–90 J	19,05
yli 90 J	52,38

Average flight distance*, meters

Rifle	55,66
Bow	55,31

* Hits immediately immobilizing the deer excluded from calculations

Missed hits*, %

	Misplaced_hits	Not recovered
Rifle	6,60	0,00
Bow	6,30	2,36

* Both entering and exiting wounds in intestines or legs

The project is facilitated by the Finnish Bowhunters' Association and funded by the Finnish Ministry of Agriculture and Forestry.

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