Meteorology.

Animals, insects, birds and fish.

often honey-combed with their holes. The grey striped squirrel is seen only where trees are numerous. The mungoose, the fox and the wild cat are found in the jungle. Hares are common in the Ghaggar valley and in the Birs. Jackals and foxes are found in large numbers in the Bir. Wolves are often brought in for reward, but do little damage in the district. Pigs are very common in the Hissar Bir, and also near Hansi, and in the lower portion of the Ghaggar valley towards the Bikaner border where they do much damage to the crops. There are a few herds of nilgai in the Hissar Bir where also large herds of black buck are to to be seen. Black buck are also to be found near Bishnoi villages where the shooting of them is strictly prohibited. Chinkara or ravine deer are common all over the district except in the Ghaggar valley.

B.-Meteorology.

Climate.

Hissar is situated in that part of India which is known to the Meteorological Department as the north-west dry area. The temperature varies from a mean minimum of 43.1 F. in January to a mean minimum of 83.1 in June. while the mean maximum varies from 71.0 in January to 107.2 in May. In October, November and December the range of temperature is 33.5, 33.4 and 32.2 degrees F., respectively, and in these months there is usually a very heavy deposit of dew at night. The air is clear from dust and moisture and gets more and more bracing till January when it becomes really cold. February is a most enjoyable month, and after that the day temperature rises rapidly till the climax is reached in May and June. About the middle of July the monsoon clouds begin to appear, and the humidity increases rapidly, till at last a thunderstorm announces the advent of the rains. It is rather a misnomer to speak of the rainy season in Hissar, because there is no such continuous rain as is experienced in other parts of the country, almost all the rain being deposited in a few heavy thundershowers, which seldom last for more than two or three hours. Falls of rain continue through August and the first half of September, and then the humidity of the air begins to decrease, while the heavy night dews announce the advent of the cold weather. Taken as a whole the climate is healthy. and supportable. The winter rainfall is commonest in January, and if it comes then it causes a slight rise in temperature and humidity, followed immediately after by a

smart fall in both. Very often there is practically no rain in winter or else the fall is delayed till March. In such cases the cold weather is considerably shortened, and the Climate. result to the spring crops is disastrous.

CHAP. I. B. Meteorology.

Full statistics of temperature and rainfall are given in Rainfall. tables 6, 7, 8 and 9 of Part B. These tables show how greatly the rainfall varies from year to year, and also from place to place. Thus in 1904-05 Hansi had 20.95 inches of rain: but Hissar, only 15 miles distant, had 15.85 inches. Similar instances could be multiplied. Indeed it frequently happens that while one part of a village has a good fall and good crops, another part has practically no rain, and the crops are withered, the line between good and bad crops being sharply defined. The summer rainfall is distributed over the period from the middle of June to the middle of September, while in the winter rain is most likely from the end of December to the beginning of March. It very rarely happens that any rain falls in October. But whenever this is the case, it is an occasion for great rejoicing on the part of all classes because the winter harvest is then assured. The rainfall in April, May and the beginning of June is usually deposited at the rate of a few cents. at a time, the falls occurring after dust-storms.

These dust-storms are the most unpleasant feature of the Dust-storms. climate. For hours before a big dust-storm the air is usually still and close, and it holds a quantity of fine dust in suspension, thus making it difficult to breathe with comfort; then with great suddenness the storm is seen on the horizon. and it spreads rapidly over the plain. There is a strong wind (usually cyclonic) accompanied by thunder and lightning, and after this a few drops of muddy rain, and the duststorm is over. Its immediate effect is to reduce the temperature by a few degrees, but this is only temporary, and the mercury in the thermometer soon begins to rise again, and atmospheric conditions are worked up for another storm and thus the cycle goes on, storm following storm, at greater or less intervals all through the hot months till the first burst of the monsoon. During a dust-storm the light of the sun is completely obscured, and it is frequently necessary to have recourse to artificial illumination. The murkiness of the atmosphere resembles that of a London fog, but the temperature is somewhere near 100° instead of being only a degree or so above the freezing point.