

CONTENTS

Introduction	1
1. Effect of disuse atrophy on pectoralis muscle and blood in the pigeon	8
2. Succinic dehydrogenase activity in the pigeon breast muscle under disuse atrophy	26
3. The glycogen and phosphorylase levels in the pigeon breast muscle under disuse atrophy	33
4. Effect of exercise on the free fatty acid levels in muscle, liver, adipose tissue and blood in the pigeon	42
5. Effect of exercise on the phosphorylase and succinic dehydrogenase levels in the pigeon breast muscle	51
6. A comparative study of the lipase activity in the blood sera of three representative birds	58
7. Phosphorylase 'a' in bird and bat breast muscles	65
8. On the lipid content and lipase activity in the breast muscle of the Rosy pastor (<u>Sturnus roseus</u>)	77
9. The glycogen content and phosphorylase activity in the breast muscle of the migratory starling, <u>Sturnus roseus</u>	82
10. Capacity for fatty acid oxidation of the breast muscle homogenate of the migratory starling (<u>Sturnus roseus</u>)	89
11. Lipase and succinic dehydrogenase activity of the	

particulate fractions of the breast muscle homogenate of the migratory sterling, <u>Sturnus roseus</u> in the pre- migratory and post-migratory periods	96
Summary and Conclusions	117
Bibliography	124