The general morphology and histological appearances of the gastrointestinal tract including the oesophagus of ten Lylei's flying fox were subjected to this study. The alimentary tracts were fixed in situ and also in special jars containing 10% formalin solution. Normal routine histological section were performed and obtained sections were stained with hematoxylin-eosin method. Photomicrographs of various parts of the gastro-intestinal tract were taken, by using ordinary light microscope equipped with automatic camera, on the black & white Kodak tri-x film.

The oesophagus appears to be a thin muscular tube connecting between the pharynx and the stomach. The proximal portion acts reservoir while the distal part possesses a definite sphincteric region preventing the regurgitation of the stomach content for this animal spend many hours of a day hanging head down. The mucosa of this muscular tube is consisted of three definite coats, i.e. the epithelium, the lamina propria and the muscularis mucosae. Widening of the submucosal layer allows the lumen to be enormously expanded. There exists the autonomic nerve plexuses placing in between the two outermost smooth muscular layers.

The T-shaped stomach lies transversely in the upper part of the peritoneal cavity. Apart from the prominent chamber, there is a prolongation of the stomach to be appeared like the proximal
portion of the small intestine. Morphologically speaking, this part of the stomach could not be distinguished from the intestine proper. The histological appearances of the mucosal lining are the significant character, for the lining of this muscular tube is similar to the one found in the stomach proper.

There exists no definite sphincteric region demarcating the stomach from the proximal portion of the intestine. The two-fold distal part of the stomach may act like a control valve regulating the flow of the gastric content into the intestine.

Cellular components of the gastric glands from various portions of the stomach appear to be consisted of - the parietal cells, the zymogenic cells. The numbers of these cells very accordingly to the various parts of the mucosal lining of the stomach. The zymogenic cells are found numerously in the dilated portion of the stomach, i.e. the bell-shaped part, the fundus, the body and the pyloric part. The parietal cells appear to be the main component of the cellular lining of the gastric glands found in the distal part (two-fold portion) of the stomach.

The intestine proper is short and suspended to the posterior abdominal wall by a thin mesentery. There exists no either circular or longitudinal mucosal fold in the proximal part of the intestine proper but this particular mucosal character could
be demonstrated in the middle and also the final portion of the gut. Long slender villi consist of single row columnar cells interspersing with the goblet cells. Fine eosinophilic granules are found in the cytoplasm of the columnar cells. The crypts of Lieberkuhn are short, the lumen of these intestinal glands are narrow and the lining is the continuation of the columnar cells covering the connective tissue core of the villus.

The presence of the irregular arranged mucosal folds in the middle portion of the intestine indicates the absorbability of the mucosa in this part of the alimentary tract. The cellular composition of the mucosal lining appears to be similar to the one found in the proximal part, excepts for the length of villi is much longer.

The solitary lymphoid follicles are found distributed along the mucosal and submucosal layers of the intestine. It does not aggregate to be like the Peyer's patch in man. Cellular organization and infiltration do not extend along the antimesenteric border of the gut.

The mucosa of the final and the straight portion of the gut is raised into four major and four minor longitudinal folds. Long mucous producing intestinal glands are found along the folds. The cellular components of these glands are the goblet cells.
-The columnar epithelial lining of the colon ends abruptly when tracing the gut towards the anal canal. The replacement of the columnar epithelial lining by the stratified squamous epithelium indicates the difference in function of these two parts. No taenia coli and other modification of the muscular coat appear in the colon.
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