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ENTOMOLOGY PAPER : ORDER COLEOPTERA FOREWORD Praise the presence of Almighty God for the abundance of Grace, Inaya, Taufika and Hinayainha so that I can complete this work in a very simple form and content. Hopefully this document can be used as one of the references, instructions and guidelines for readers in managing education in the teaching profession. I hope this document will help add knowledge and experience to readers so that I can improve the form and content of this document so that in the future it may be better. This article I admit is still a lot of flaws because the experience I have is sorely lacking. I therefore expect readers to make a constructive contribution to the improvement of this document. AUTHOR

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INTRODUCTION A. Background insect problem is important in our ecosystem. Insects can support soil aeration, pollinate flowers, control pests, and as well as how Plants insects are also able to decipher organic matter, thereby returning nutrients to the soil. Ten years ago, there were about 750,000 species of insects. Today, the number has exceeded 1,000,000. According to a recent scientific American article, entomologists have estimated that there are probably more than eight million species of insects on Earth. If we compare this with about 4,809 species of mammals or 1,500,000 species of fungi, insects have populations larger than other living taxonomic groups on Earth. Coleoptera comes from the Latin coleos shield, pteroon and wing, that is protected by winged insects. Some of its members act as pest plants, but some act as predators for other insects. Order of Coleoptera, which means layered wing, and contains a species that is often depicted in it compared to some other orders in the animal world. Forty percent of all insect species are beetles (about 350,000 species), and new species are still widely found. Estimates estimate the total number of species described and not outlined, from 5 to 8 million. Some of its members act as pest plants, but some act as predators for other insects. Wings consist of two pairs. The front wings harden and thicken and have no wing veins and are called elytra. When resting, Elitra seems to split in half (split right in the middle of the dorsal part). The back wing of the membrane and if it rests the folds under the front wing. Mouth bite tools of the chewing type tend to develop well. In some types, especially from the tribe Curculionidae mouth tool is formed on the muzzle, which is formed in front of the head. On this occasion will be discussed the order of insects that have the greatest appearance in the attractiveness of other insects, namely the order of coleoptera which in Indonesia is better known as the beetle. And including the largest order of insects to have 300,000 species. B. The wording of problem 1. What about the morphology of the Order of The Coleopter? 2. What is the physiology of the Order of The Coleopter? 3. What is the classification of the Order of the Coleopter? 4. What are the roles of the Order of the Coleopter? CHAPTER II DISCUSSION Features Anthropodes are the body and its limbs segmented, the exoskeleton (body wall) is a kitin and take-segments, mouth tools well-mannered and adaptable to the way of nutrition, the body cavity blood cavity (hemocoele), breathing with the surface of the body, gills, trachea or lungs, tubular-shaped food digestive devices, located along the body Sub phylum Mandibulata is characterized by changes of legs near the mouth in steam mouth or jaw-like jaws. The insect class has characteristics: the body is divided into three parts (coconut thorak-belly), has a pair of antennas, its limbs number 3 pairs, has wings 1-2 pairs, and the mouth tool consists of: 1 pair of jaws (jaw), 1 pair of jaw (located behind the jaw), labia (lips) and hypofarinc (language). Pterigota subclasses are usually winged, some of them wingless, but not since their ancestors do not have additional tools, such as style, undergo simple metamorphosis - simple (metabolic) (Lilies, 1991). Orders included in the Insekta class, pterygota subclasses include Ephemeroptera, Odonata, Grylloblattaria, Phasmidia, Orthoptera, Mantoday, Blattaria, Isopter, Dermutter, Embidine, Plecopter, Sorapter, Psocopter, Ftirapter, Hemipter, Gomopter, Tisanopter, Neuropter, Coleopter, Strepsipter, Mecopter, Sigper, Dipper, Trihopter The Order of The Collooper belongs to Animalia, Filum Arthropoda, sub-filum Mandibulata, Insekta class, Pterigota subclass, and includes Endopterygota. The Order of The Coleopter is the largest insect-free and contains about 40% of the known hexapods (borror et al. 1992). The Order of the Coleopter in Indonesia is called a beetle. Beetles are one of the animals that have the species of most species of insects. Order of Coleoptera, taken from the word coeleos which means seludang and pteron meaning wings, can be inferred Coleoptera is an insect that has a cage on the wings. Forty percent of all insect species are beetles (about 350,000 species), and new species are still widely found. Estimates estimate the total number of species described and not outlined, from 5 to 8 million. Coleoptera comes from the Latin coleos shield, pteroon and wing, meaning winged protected insects. Some of its members act as pest plants, but some act as predators for other insects. Beetles can be found in almost all habitats, but are not known to occur in oceans or in polar regions. Their interaction with ecosystems is carried out in a variety of ways. They often feed on plants and fungi, damage the protective structures of animals and plants and prey on other invertebrates. Some species prey on different animals, such as birds and mammals. Some types of agricultural pests such as Colorado potato beetle Leptinotarsa decemlineata, Anthonomus Grandis cotton beetle, red flour beetle Tribolium castaneum, and mungbean beetle or cowpea Callosobruchus maculatus, another type of beetle is an important kotrol agricultural pest. For example, coccinellidae (ladybugs Spotted beetles) that consume aphids, tree pests, thrips and other insect-sucking plants that damage the harvest. The Order of the Coleopter has characteristics: It has two pairs of wings, namely the front wing and the rear wing. The front wings are thick and the outer surface is smooth, which contains the substance of the horn, so it is called elytra, while the rear wing is thin as a membrane. · When resting, Elitra seems to split in half (split right in the middle of the dorsal part). The back wing of the membrane and if it rests the folds under the front wing. · Perfect metamorphosis passes. · The ideal type of metamorphosis (golometabola) whose development through stadiums : eggs - larvae - cocoons (dolls) - zgt; (imago). The larvae are usually thoracic feet (oligopod type), but there are some that are legless (apod). Cocoon does not require external feed (rest) and free type / libers. · Type of bite in the mouth. Mouth bite tools of the chewing type tend to develop well. In some types, especially from the tribe Curculionidae mouth tool is formed on the muzzle, which is formed in front of the head. · Some examples : - Coconut beetle / rhino beetle / horn beetle (Oryctes rhino) Kingdom : Animalia Filum : Arthropod class : Insecta Order : Coleoptera Famili : Scarabaeidae Genus : Oryctes Species : Orycte rhino L. - Grain Flea (Rhyzoperta Dominica) kingdom : animalia phylum : anthropode class : insecta order : Coleoptera family : Brostrichidae genus : Rhyzoperta species : Rhyzoperta Dominica Specimen features : has 2 pairs of limbs, reddish-brown, On the head there are a kind of small spikes of the goods attacked: rice grain symptoms applied: seeds become holes or holes, there is powder in rice because of its bite (Anonymouso, 2010). - Coconut beetle janur (Brontispa longissima Gestr) Kingdom : Animalia Filum : Arthropods Class : Hexapod Order : Coleoptera Famili : Chrysomelidae Genus : Brontispa Species : Longissima Scientific Name : Brontispa - Rice fleas (Sitophilus oryzae) Kingdom : Animalia Filum : Anthropod Class : Insecta Order : Coleoptera Families : Cureulionidae Genus : Sitophilus Species : Sitophilus oryzae Sample characteristics: has a muzzle, There is an elytra over the abdomen, adult body length 3.15-5 mm, adult Goods attacked: Rice Symptoms inflicted: Seeds become perforated there are fibers after a pest bite, seeds become cut into pieces (Anonymousg, 2010). And. Morphology of the Order of The Collooper - Beetles have rigid, thick front wings and are a cover for the rear wings and body. The front wing is called an elitron. When flying, the front wings of beetles do not work only the rear wings are used for flight. The rear wing is in the form of a membrane and at rest is formed under the elite. - A type of beetle tool mouth type bite and chewing gum, the beetle also has a loose head and sometimes extends forward or down, so that it turns into a muzzle. - Beetles have large faces, without single eyes (ocellus). The abdominal cavity has 10 segments and the area of the sternum sections are not all visible. - Male beetles, protoracists and jaws are often enlarged and used to fight. B. Physiology of the Order of Coleopter A. The respiratory system of the Order of Coleopter In general the breath of an insect is the same. The insect breathes the trachea in the form of a forked tube, covered with chitin. Oxygen comes directly from the trachea into the body's cells. The trachea system opens on the outside of the body through a spiracle, which pores that can open and closely regulate the flow of air and limit water loss. Respiratory air flow: Oxygen flows through the spiral into the trachea. Next to the tracheole and there is an exchange of gas with the cells of the body. Respiratory mechanism: when the abdominal muscles contract, the trachea is depleted so that the co2-rich air out of the body comes out. When the abdominal muscles relax, the trachea in its original position and the o2-rich outer air will enter through spirakel. B. The digestive system of the Order of Coleopter In general, the digestive system of the Insectits is the same. Insekta has a complete digestive system and clear organs for food remodeling and absorption of food substances, namely the mouth, esophagus, stomach, intestines and anus. His mouth is used for chewing. C. Excretion system in the secretion system of the Order of the Coleopter The malphigi tube-killer is attached to the back of the gastrointestinal tract. D. The blood system in order of Coleoptera Hidden circulatory system is an open circulatory system with the organ of the heart vessel, which serves to pump hemolymphs through homosol sinuses (body cavity). Open circulatory system (heart, short vessels, sinuses/hemosol, hemolymph) means blood circulation outside the vessel, so that blood moves freely from the heart exit from the heart to the cells throughout the body and back to the heart with muscle pressure of the body. Blood carries only food juice without oxygen because O2 can directly access the body's cells because it flows into the tracheo into the cell. Blood is not red because it doesn't have Hb because it's not necessary. Blood does not contain haemoglobin (Hb), so it is not transported by oxygen or carbon dioxide, but only serves to transport food. E. The nervous system of the Order of The Order of The Order of The Insect Nervous System consists of a pair of ventricular nerve ligaments with several segmental ganglia. Several segments of the anterior ganglia merge to form a brain close to the anen, eyes and other senses focused on the head. F. Reproductive system in the Order of Coleopter Most insects reproduce sexually, the other part is asexual or parthenogenetic. The male reproductive system serves to produce and deliver or deliver sperm. A woman's reproductive system serves to produce and store eggs, store sperm as a place of fertilization, and lay eggs or give birth to larvae or nymphs. Male and female reproductive system - The male reproductive system is located in the back of the abdomen, consisting of a pair of gonads called testicles (double; testicle and one) connected by tubes that boil in the edeagus or penis. Basically, the system is the same in all insects, although it varies depending on the type. The testicles have a pair (two) on a bilateral basis, but some of them merge (merging) in the middle (e.g. on Lepidoptera). Each testicle consists of a number of follicles enclosed by a connective tissue. - The female reproductive system consists of a pair of goandas or ovaries (ovaries) that are connected by tubes to the vagina that have holes outside. Ovari produces eggs and consists of several, many ovaries, which are functional units. The strategy of embryo reproduction in insects can be grouped into three main types, namely: Oiepar female insects lay ripe eggs whether fertilized or not. The development of the embryo takes place outside the mother's body and the embryo receives food from the yolk. Most insects have the development of ovipar. Vivipar On the development of viviparal females insects do not lay eggs, and give birth to larvae or young nymphs in the form of individuals that are not wrapped in eggshells (corions). The development of the embryo occurs in the mother's body, and the embryo receives food directly from the mother's body. · Ovovivipar eggs contain enough yolks to feed the developing embryo and are laid by its mother as soon as it hatches. The term ovovivipar is also used for insects by laying eggs containing developing embryos (eggs are ready to hatch). In addition to the three main types above, insects also have several other types of embryo development, namely - Polyembrioni In polyembrion each developing egg can divide mitosis into several to many embryos. This type of development is usually found in Hymenoptera. Eggs on polymbrion insects differ from non-half-bird insects, as follows: (1) eggs are very small, (2) without yolks, (3) carions, if any, very thin and permeable. - Paedogenesis Pre-adult insects have mature genitalia and can produce offspring. Some species of Coleoptera have the development of paedogenesis. - Parthenogenesis Egg develops into an embryo without experiencing fertilization. Parthenogenesis can occur in both ovipar and viviparal insects. The metamorphosis is a developmental process that converts the first instar to adulthood in adulthood called metamorphosis, which means actually changing shape. The change in shape can occur gradually, i.e. in pre-adult form in general almost the same as adult form, or suddenly (sharply), i.e. pre-adult form is very different from adulthood, and this change occurs at the end of the star before adulthood. Metamorphosis (change of form) is grouped into four types, namely: 1. Without metamorphosis / amphetamine (amphetamine) - In this type, some species of insects do not show the appearance of metamorphosis, that is, immediately after hatching is born a young insect similar to his mother, except for its small size and difference in the maturity of its genitals. Then after the growth is enlarged and undergoes skin changes, it becomes an adult insect (imago) without any changes in shape only experiencing a significant increase in size only. Before adult insects are often referred to as the term gaead. This type of metamorphosis is found in insects of the Order of Collembola, the Order of Tisanura and the Order of Protura. 2. Gradual Metamorphosis (Paurometabola) - Insects experience the form of paurometabola during its life cycle goes through three stages of growth, namely egg flocks, nymphs and imago. Before adult insects are called nymphs. Nymphs and Imago have the same type of mouth products and types of food, a form of nymph resembling their mothers, only smaller in size, not yet winged, and does not yet have genitalia. The adult insect undergoes several skin changes, followed by the gradual growth of the body and wings. Insects included in this type are ordered by Orthoptera, Hemiptera and Homoptera. 3. Imperfect Metamorphosis (Hemimetabola) - Hemimetabola has almost the same lifestyle as paurometabola, only habitat until adult insects differ from the imagon. The stage in the development of one's life consists of eggs, naiads and imago. Until adult insects are called the term naiad. Until adult insects are called the term naiad. Nayad lives in water, and has a breathable kind of gill while imago habitat is in the ground or in the air. Insects that have the development of hemimetabolic are the order of Odonata (Dragonfly). 4. Perfect metamorphosis (Holometabola) - In this type of insect there are four stadiums during the life cycle, namely eggs, larvae (caterpillars), pupae (cocoons) and imago. Pre-adult insects are called larvae, and have different habitats to make them imago. The larvae are an active food phase, while pupae are a form of transition characterized by remodeling and re-composing the body's internal and external instruments. Insects that have the development of golometabola, namely the order of Lepidoptera, order Coleoptera, order Hymenoptera. Based on the characteristics of its wings and mouth tools, this Holometabola group includes 6 orders, namely order: 1. Neuroptera 2. Lepidopter 3. Ditter 4. Coleopter 5. Siphonopter 6. January 28, 2019 - 2018 Classification of the Order of The Coleopter In classification, coleoptera is more closely related to primitive Neuropteroidea (Megalopter, Raphidioptera, and Neuroptera), and is similar to Orthoteropidea (Dermaptera). Coleoptera is divided into 4 pods: a. Achostemata (including Micromalthus), only 3 b families. Myxophaga, only 4 families c. Adephaga, only 8 families d. Polyphaga, a total of about 138 family Subordo Adephaga members of this subordo have back coke that share the first abdominal sternum that look. The edge of the sternum's back does not extend perfectly past the abdomen, but stops the back of the coke. Almost all of them which has the shape of hair, has a sutura-sutura notopleura and is mostly predatory. - The family of carabids (terrestrial beetles) This family is one of the largest in Adefage (more than 30,000 species), most of whose members are predators, both larvae and adults, as well as other insects, some snails-specialists. The larvae and imagonya are very active, although some live in pits, such as tiger beetles. Members of Karabid have three environmental groups, namely geophiles, hydrophiles and wood. In his life there is a diuretic and night character, both diarnal and night is a strategy to find prey. To protect it, many species have chemical protection as a result of the abdominal gland. For example there are groups (bombardier beetles) that produce chemicals that are expplosively emitted from the area that emits smoke, they emit glands (precursors) that have reservoirs, the vestibule (enzym intervened) that produce hot chinon (approximately 100 OC). - The Family Dytiscidae (water tigers, predatory diver beetles) Maggots and imago Dytiscidae live in the water (akuatik), but imago aviators are active and attracts to light. In addition, both are predatory in most insects, some on shellfish, amphibians and fish. The larvae have hollows in the sickle-like part of the mandibel (additional oral digestion), when they attack the victim, they suck bodily fluids through the holes in the mandibela. The larvae receive gas through caudal spirals and abdominal gills, for some species receive gas through the integrator. In adult insects, the surface is eventually caudalnya used to take air bubbles on the abdominal cavity (cavity) subelytra, they fill it in time for the surface. The limbs of the natatorial type, both in larvae and in imago, develop in both methatorax limbs of imago. - Family gyrinidae (whirligig beetles) Aastic life larvae at the bottom of the water (lower inhabitant) and abbemal appendages, in pairs, as in The Mealoptera larvae. Imago live on the surface of the water and groups (Greek). The larvae and imago are predatory, the larvae are eaten by various small and often cannibalistic exotic animals. Imago eats insects that fall to the surface of the water and sometimes saprofag in decomposing animals. The larvae have sicle-like mandibels, such as Dytiscidae. Exchange gas for larvae through the abdominal gills. There are modified antennas in the imago that make up Johnston's organs, which develop well to detect the movement of the water's surface. Imago has complex eyes, divided into dorsal (air) and ventral (underwater) pairs. Spinal couple serves to find prey, sedan abdominal pair Predators. Unsustainable imago movements are caused by short limbs, mesothorax limbs and modified metatoraxes, but this is a strategy to avoid predators. Subdo Polyphaga In this subdo the first abdominal sternum which seems undivided by the back dictionary and its back border extends absolutely behind the abdomen. The rear trokhanter is usually small, appearing to the middle line as in Adephaga and notopleura sutura does not exist. - Family hydrophilidae (water scavengers) These insects have larvae and imago phases in the water (iertic), for adult insects can leave water and approach light. The larvae are predatory, and the group is mostly on the larvae of the ditters, while imago is omnivorous, carrion-eating. The exchange of gas in the larvae, mainly through the lateral filament of the abdomen (gills), as in Megaloptera. Adult insects rarely hang down their heads (the opposite of Dytiscidae). The antennas on the surface of the water layer dry the hair at the end of the antenna, the antennas hold the bubbles and push them into the ventricles of the torque and abdominal cavity, and then into the under-layered hole. The vent will look shiny like metal when it holds air bubbles. As a breathing function, the bludgeoning antenna, palpi maksila becomes longer, which is used as a sensor tool, similar to a filiform type of antenna. Adult insects swim, moving opposite limbs interchangeably, unlike Dytiscidae, which moves opposite limbs at the same time, like frogs. - The family of staphylinidae (rove beetles) By its characteristics it bears similiarities to Dermaptera, short, cone-shaped elitist and incisions on its top, but has complex folds on the wings of metatorax. Staphylindas are very active with a flexible stomach. Maggots and imago are predators or saprophagus, the population is replete with foliage, decaying plants, rotting wood, etc., or some of them are associated with fungi. Its presence in moist places and decomposing plants may be due to the biological control of some flies, such as onion larvae. The Staphylinde family has a semi-aesthetic subfliemy that is known to glide over the surface through the secretion of abdominal chemicals that reduce the surface tension of the water. This ability is used for rapid movement and is useful in avoiding predators. Another protection is to produce chemical compounds that cause heat on a person's skin. - The Scarabaeidae family (white larvae, scarabs) Most beetles belong to this family, and even most insects, in this group of animals, in this family the largest genus with more than 1,500 species. Ecologically, the family is divided into three groups: phytophobic insects, animal manure eaters (recycling agents), and for some are termiopathic and myrmephilic species. Insects that fitofag, have larvae in the form of C, a type of scarabaeiform, called tempayak or larvae. These larvae are often pests on grassy fields, such as on golf courses, or live on rotting wood. Its adult beetles feed on foliage, flowers, etc. Insects that feed on animal excrement play a big role as recycling agents. In Australia it is used as biological control to cope with abundant animal excrement on farms. The behavior of scarab insects in life made it a generalized society of Ancient Egypt, which was associated with Ra (the god of the sun). Adult insects will chew a piece of stool, make a ball, and roll it, its ball as the shape is connected to the sun. Activity by laying eggs by adult insects, Egyptians see this as a natural pattern of the cycle. Termitophilic and myrmecophilic species, usually inhabited in nests or vertebrate holes or inside the nests of ants or termites. - Family Elateridae (wireworm, click beetles) Larvae are subteranized or live on rotting wood, while their adult life on foliage, tree, and in some types attracts to light. The larvae and their adults are phytophobic, some larvae are pests on newly planted seeds and plant roots, such as in potato crops, and some are predatory, especially those that live in the forest. Solid larvae (solid larvae), short stem, well-developed heads of capsule and mundybel, larvae of elateriform type, or for this family of larvae are also called wireworms. Adult insects can flip and jump, this snapping mechanism occurs when performing the prostrial movements of the spine suddenly in the mesosternal hole, while the normal position of the clamp is held on the edge of the hole, and when the clamp is released, the jump begins. When turning his body bends to the right to avoid predators. This behavior saves energy to be more efficient about 50% - 60% and muscle energy is converted into kinetic energy. One of the geneams of the Elateridae family is bioluminescence in both larvae and imagonium. These insects have traceable body fat cells and reflective cells. These organs are light-producing cells that control the transmission of light, controlling the flow of air to these organs. When on the ground, imago usually glows on 2 spots on the pronotum (yellow-green), while 1 abdominal spot on the the abdominal cavity (red) is used as a landing light. The resulting light is more intense than that of fireflies (fireflies, Lampyridae family). The Family Coccinellidae (lady bugs, lady birds beetles) Larvae and Imago are usually on foliage, adult insects of many species visit winter in very large groups. Predatory insects, actively seeking prey on small, soft-bodied insects such as aphids, are very useful in control. A classic example of the biological control of the coccinellidae beetle was the import of Rodolia cardinalis from Australia (1888) to control the cotton scale of the pillow (Icerya purchasi), which destroyed the citrus industry in California. For phytophobic species, many become destructive garden pests such as Mexican bean beetles. Some types of mycetophagus (soft tendons). Most species of imago, feed on aphids, fragmented during the winter, after synchronizing the life cycle with the life cycle of aphids. To protect it, adults usually pretend to die associated with reflex bleeding associated with chemical protection. - The Tenebrionidae family (dark beetles) The Tenebrionidae family has more than 1500 species, with almost the same habitat as Elateridae, i.e. larvae in subteranation or on rotting wood, while imago is in the soil or forest and some are attracted to light. The larvae and imago are phytophobic or mycetophadah, larvae on roots, wood or mushrooms. Some species are cosmopolitan pests of rice grains. These insects adapt well to the xeric habitats, with solid-bodied, unified elitists, some with reduced or non-chrome marker wings in general, and cryptonefridic systems that are well-developing. Ecologically, terrestrial beetles have the ability to store water. The abdominal gland secretes interspecies alomon, colored quinone and smells bad. Its posture characteristics are suitable for protection, for example, on Eleodes with a head stand. These insects also secrete intra-specific pheromones, chemical secretions as pheromone aggregation. - Family meloids (blister beetles) larvae develop during locusts eggs, or some live in wild hives at the lyrical stage, where they eat bee eggs and food stored (positions) in rooms with eggs. Imago on foliage, fidophage or not eating. These insects are exposed to hypermetamorphosis, with different larvae instars and very different shapes. The first larva instar, a long and active limb, called triungulin, has the shape of a campodeiform, looking for locust eggs or honeycomb then changes the skin. In the type that develops in honeycombs usually triungulin rises on the flower and itself in bees, so there is displacement (phoresy), especially parasitoid bees. In one group, adults modified the maxila (galea), forming a suction tube to eat on nectar. - The family Cerambycidae Larvae and Imago are fitofag or saprofag. The larvae on dead wood (xilofag), some of them are minor forest pests. Imago is found in wood (gelondongan), often attracted by fresh/freshly cut wood, and in colors, many are bald and serve as wateringrs, as in many Scarabaeidae. Adult insects are colorful for different species, while for nocturnal species, colors are not attractive, many nocturnal species are attracted to light. - The Chrysomelidae family (leaf of beetles) Larvae and imago are phytophags, many of whose members are species of serious pests (especially larvae). Behavior of one group (sub-family Hispinae), collecting foliage. Some adult insects have a habit of imitating fecal pellets. - The Curculionidae family (weevils, snout beetles) curculionidae family is the largest family in the Order of Coleoptera, a member of more than 60,000 species. The larvae and imago are phytophagos, many of them have a specific host, and many of them are also important pests such as cotton weevil, rice and corn weevil, alfalfa weevil, and others. The surface of the beetle promotes the growth of fungi, algae, lichens, livers, mosses, these beetles are the masters of the simplest, rottifars, nematodes and ticks. D. The role of the Order of The Colleopter Example : Coconut beetles (Orytec rhynoceros) attack coconut shoots, ferns, sago, palm oil and others. · Rice flea damage is stored by foods (soy flour). · Grain lice attack the grain Coconut Yanur beetle attack on the coconut leaves of the janur BAB III CONTUT COLEoptera originating from the Latin coleos shield, pteroon and wings, meaning winged insect shield. Some of its members act as pest plants, but some act as predators for other insects. Order of the Coleopter has characteristics: Has two pairs of wings When resting, Elitra seems to be split in half (split right in the middle of the dorsal part). · The back wing of the membrane and if it rests the folds under the front wing. · Perfect metamorphosis passes. G. The type of mouth bite of the respiratory system in the Order of Coleoptera In general breathing in the insect is the same. The insect breathes the trachea in the form of a forked tube, covered with chitin. 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