hello students i am dr suman vedpaltari
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and i am bringing before you first part
of module number 14 reproduction in
fishes
under unit morphology physiology and
behavior
of the paper zod103 fish and fisheries
in this topic you will learn about
reproductive behavior in different types
of fishes
clutch size in different fishes and the
male and female reproductive organs
at the end of the module you will be
able to understand
the different modes of reproduction in
fishes
understand the reproductive behavior in
different fishes
and also understand male and female
reproductive organs
in this topic we will see how the fishes
reproduce
the reproduction is the most diverse and
fascinating aspect
of studying any group of animals
especially
the fishes most fishes reproduce by
sexual reproduction
most species have separate male and
female sexes
but there are also many species that are
called as hermaphrodites
meaning that an individual has both
testes
as well as ovaries
generally a hermaphrodite can only
produce one type of gamete
sperm or egg at a time so their gametes
must be cross fertilized by another
member of the species
many hermaphroditic fish switch sexes
alternating between producing sperm
or eggs during different reproductive
cycles so we have both the categories of
fishes
in hermaphroditic fishes we have the
ones which produce
both types of gametes or either type of
gametes
there are examples of few hermaphroditic
species such as hamlets and salmon
that produce both egg and sperms
the amazon molly poecilla formosa of
mexico
and texas silverside minidia clark hubsy
of texas
are one of the few known species of
parthenogenetic
fish the weather the fishes lay eggs

or they give birth to live young or they
incubate the eggs within their body
and then give birth to live young based
on that
fishes are classified as oviparous, ovo-viviparous
and viviparous a fish species
is oviparous if the eggs are fertilized
internally and then laid by the female
they are called as oviparous if the
eggs are fertilized
internally and then carried in the
female body
until they hatch then they are born
alive and not laid as an egg so this
type of fishes are called as
ovo-viviparous a fish species is viviparous
if the eggs are fertilized internally
and the embryos are kept within the
female body
until they are born alive but these
embryos receive nutrients
directly from the mother while they are
developing
in addition to those in the egg at the
time of fertilization
the vivi parity as such is rare in
fishes
but there are few very successful
examples
like the common mosquito fish gambusia
aphenus
which can produce about 30 young with a
gestation period of
24 days
fishes can become sexually mature at
various
ages depending on each pieces
several factors influence sexual
maturity
including age gender and size
secondary sexual characters and
accessory structures
are necessary for courtship behavior
both
male as well as female gonads undergo
marked cyclic morphological and
histological changes
before reaching full maturity and
becoming
right this process of undergoing cyclic
morphological and histological changes
is called as maturation of the garnets
let's talk about now clutch size in viviparous fishes
a clutch of eggs is the group of eggs
produced
by animals often at a single time
particularly those laid in a nest eggs
we have few examples
the black spotted shark kacharina chile
one to two young bristly cat shark
hilarious hispidus is another example
which produces two

young at a time the brown cat shark
a priestess brunias produces two young
at a time
and the caribbean sharpnose shark
rhizopranodon porosis produces two to
six young ones
at a time let's see few more examples
the guppy's
Poecilla reticulata give birth up to
40 young ones as well as the green
swordtail
cyphoforous hillary is one of the most
prolific of live bearers along the
fishes
and can produce as many as 200
young ones in females the ovaries are
enlarged during breeding season
matured oocytes pass to the exterior
through the oviduct
which is called as external
fertilization
some bony fish eggs are dropped in body
cavity
as there are no ob ducts and pass
through
genital funnels let's talk about the
male reproductive system
the main organ reproductive organ in
case of males are the testes
which are paired lobulated
symmetrical and placed in anterior part
of the cello
transport of spermatozoa from testes
to to exterior occurs or differs in
many fishes
in elastomobranch and holocephalans
and futilios internal fertilization
occurs
and is affected by copulatory organs
called as claspers or mixoterisia
which is used for transferring the
sperms into the body of the female among
teleos
an intrromittent copulatory organ is
present
only in those pieces like r singhala
in which a conical genital papilla is
present
and fertilization is external let's talk
about the female reproductive system
the main reproductive organ is the
ovaries
which are paired structures but
sometimes
they are unpaired which is nothing but a
fusion of two ovaries
they are attached to body wall by
mission trees
they are also enlarged or filled with
yolk
during breeding season structures
concerned for transportation of eggs

from
Coelom to exterior varies greatly
like in elasmobranchs have shell
gland in each oviduct
in teleos oviducts unite posteriorly to
form
single duct which opens by genital pore
students there are these are the few
references for your
further reading so this is the end of my
module
thank you