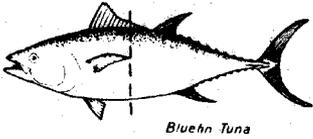
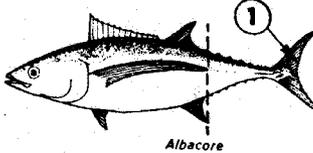
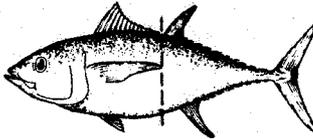
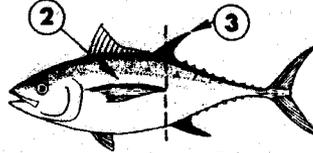
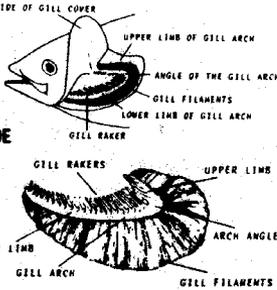


Southeast Fisheries Science Center
Pelagic Observer Program

Atlantic Tunas and Tuna-like Species
Identification

A B C	PECTORAL FIN	FINLET COLOR	GILL RAKER RANGE	LIVER		WEIGHT (ESTIMATED MAXIMUM)
				BOTTOM SURFACE	LENGTH OF 3 LOBES	
	SHORT	YELLOW with narrow black back edge	34-43	STREAKED	LOBES EQUAL or middle lobe slightly longer	1200 Pounds
	LONG	DORSAL: All May Have YELLOW in center ANAL: 1 or 2 May Have YELLOW center SILVERY OR DUSKY	25-31			75 Pounds
	MODERATE	YELLOW with BROAD black back edge	25-29	STREAKED	LOBES EQUAL or middle lobe slightly longer	450 Pounds
		YELLOW with narrow black back edge	27-33			350 Pounds
		DORSAL: DUSKY-BRONZE ANAL: DUSKY-GREY	19-25	SMOOTH	RIGHT LOBE LONG	40 Pounds

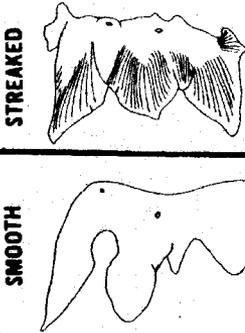
GILL RAKERS



UNDERSIDE OF GILL COVER
UPPER LIMB OF GILL ARCH
ANGLE OF THE GILL ARCH
GILL FILAMENTS
LOWER LIMB OF GILL ARCH
GILL RAKER
GILL RAKERS
UPPER LIMB
ARCH ANGLE
LOWER LIMB
GILL ARCH
GILL FILAMENTS

COUNT TOTAL NUMBER ON OUTSIDE OF FIRST ARCH EITHER LEFT OR RIGHT)

LIVER (Bottom View)



STREAKED
SMOOTH

LOBS
EQUAL OR MIDDLE SLIGHTLY LONGER
LONGER RIGHT LOBE

A COLOR IN TUNAS MAY FADE OUT RAPIDLY AFTER DEATH, ESPECIALLY THE GOLD HORIZONTAL STRIPES IN YELLOWFIN AND BLACKFIN. THE FIN AND FINLET COLORS USUALLY REMAIN LONGER.

B A PATTERN OF VERTICAL WHITISH BARS AND ROWS-OF-SPOTS IS PRESENT ON THE LOWER SIDES AND BELLY OF SMALLER TUNA, UP TO ABOUT 20-30 POUNDS.

C THE SECOND DORSAL LOBE AND THE ANAL LOBE ARE USUALLY YELLOW IN LARGER YELLOWFIN, BLUEFIN, AND BIGEYE AND ARE DARK WITH WHITE DISTAL MARGINS IN ALBACORE AND BLACKFIN.

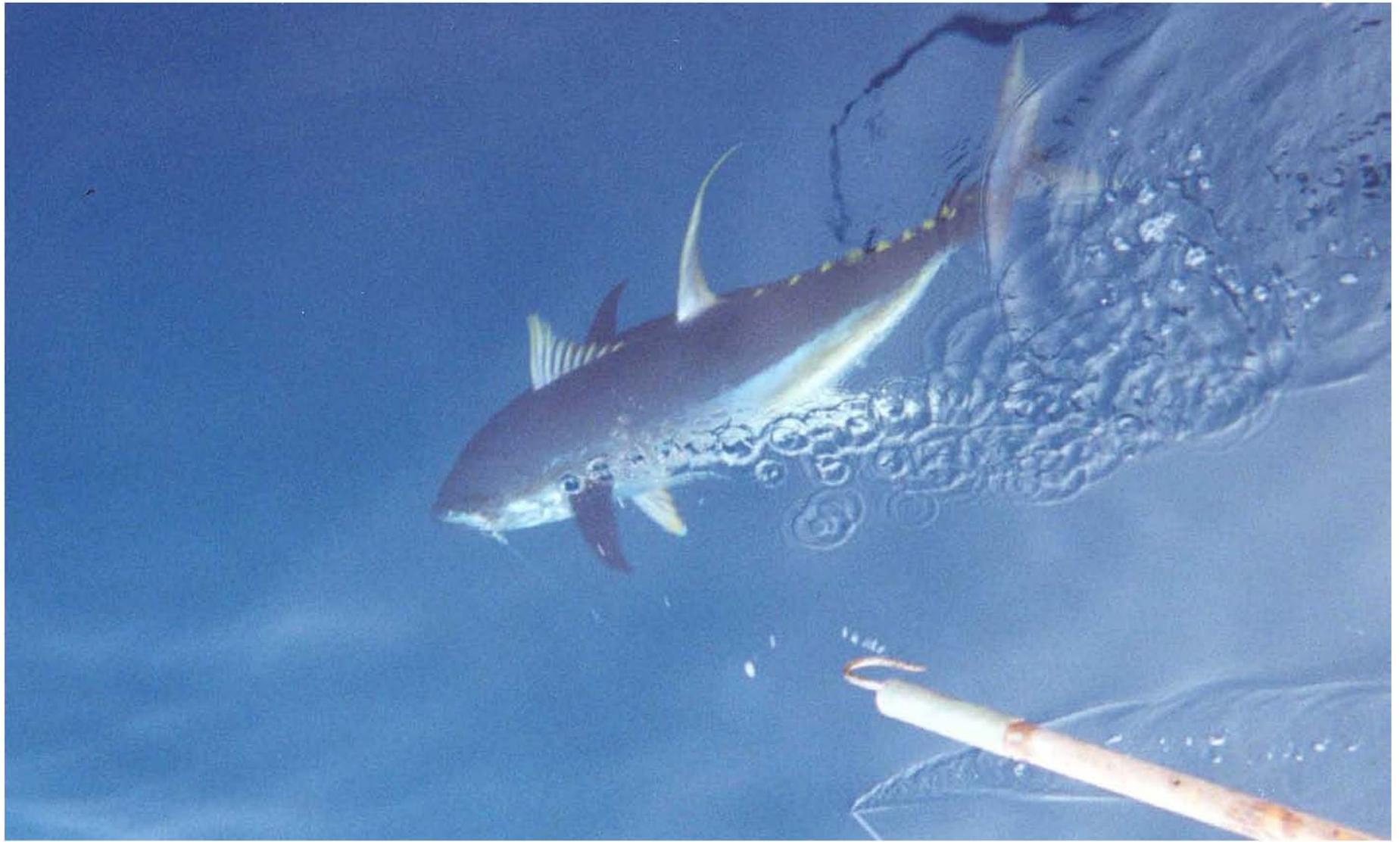
1 Narrow white margin on trailing edge of caudal fin.

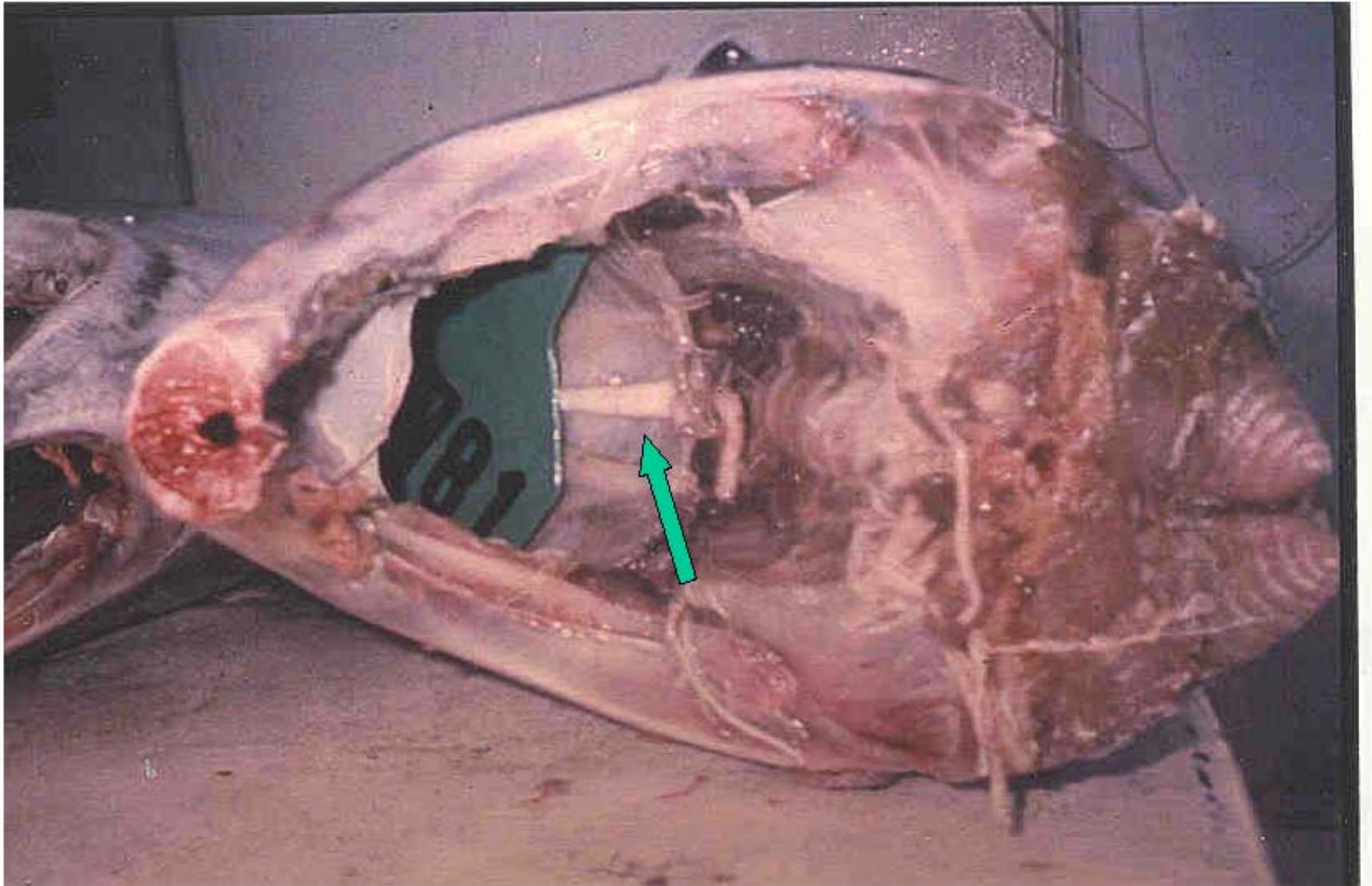
2 Gold horizontal stripe, fading after death.

3 Dorsal and anal fin lobes very long at about 60 pounds and heavier.



Yellowfin tuna

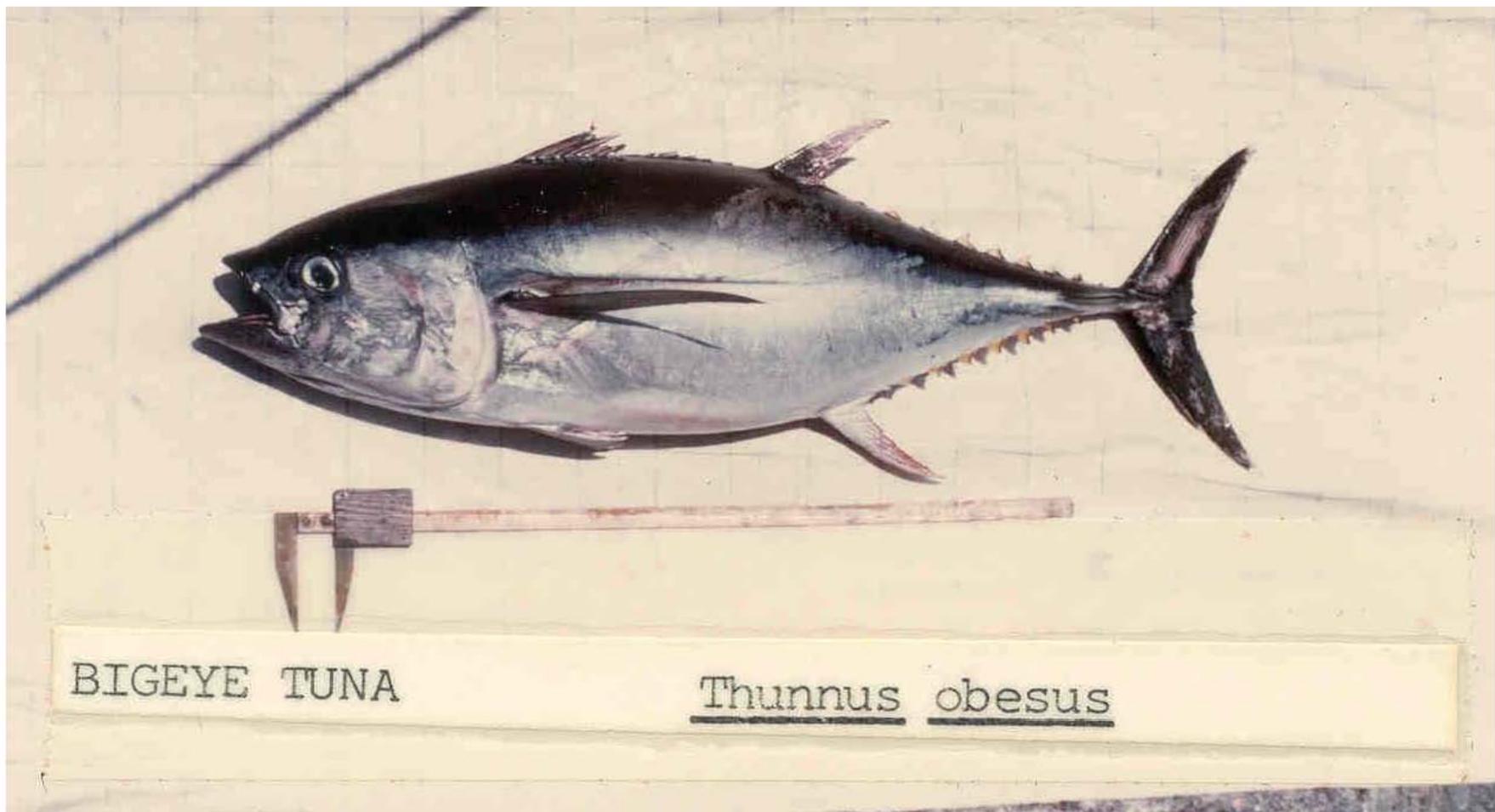




Yellowfin tuna



Bigeye tuna



BIGEYE TUNA

Thunnus obesus





ALBACORE

Thunnus alalunga



BET

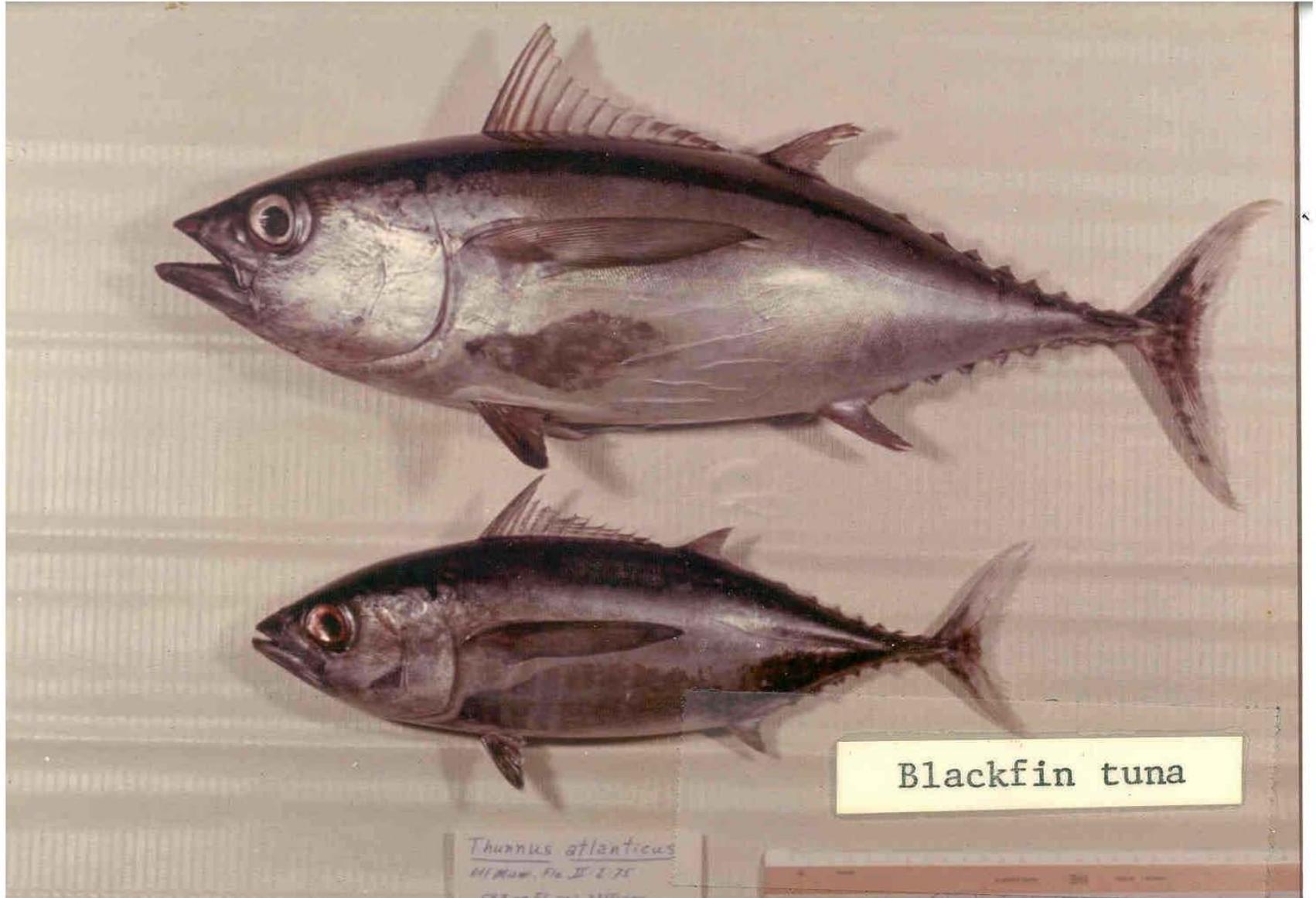
YFT

ALB

Top:
BIGEYE
Middle:
YELLOWFIN
Bottom:
ALBACORE





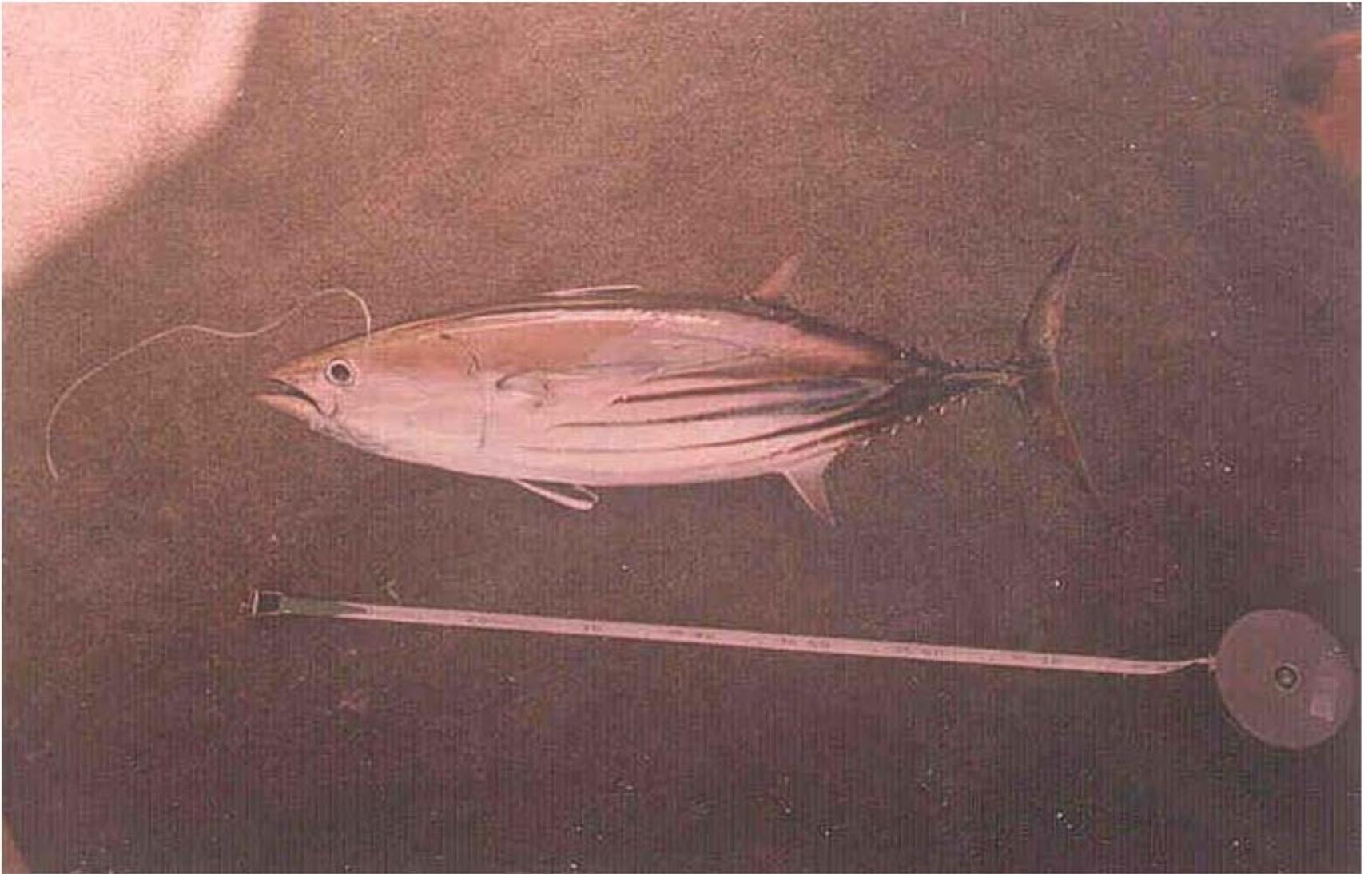


Blackfin tuna

Thunnus atlanticus

SI Mus. No. J 275

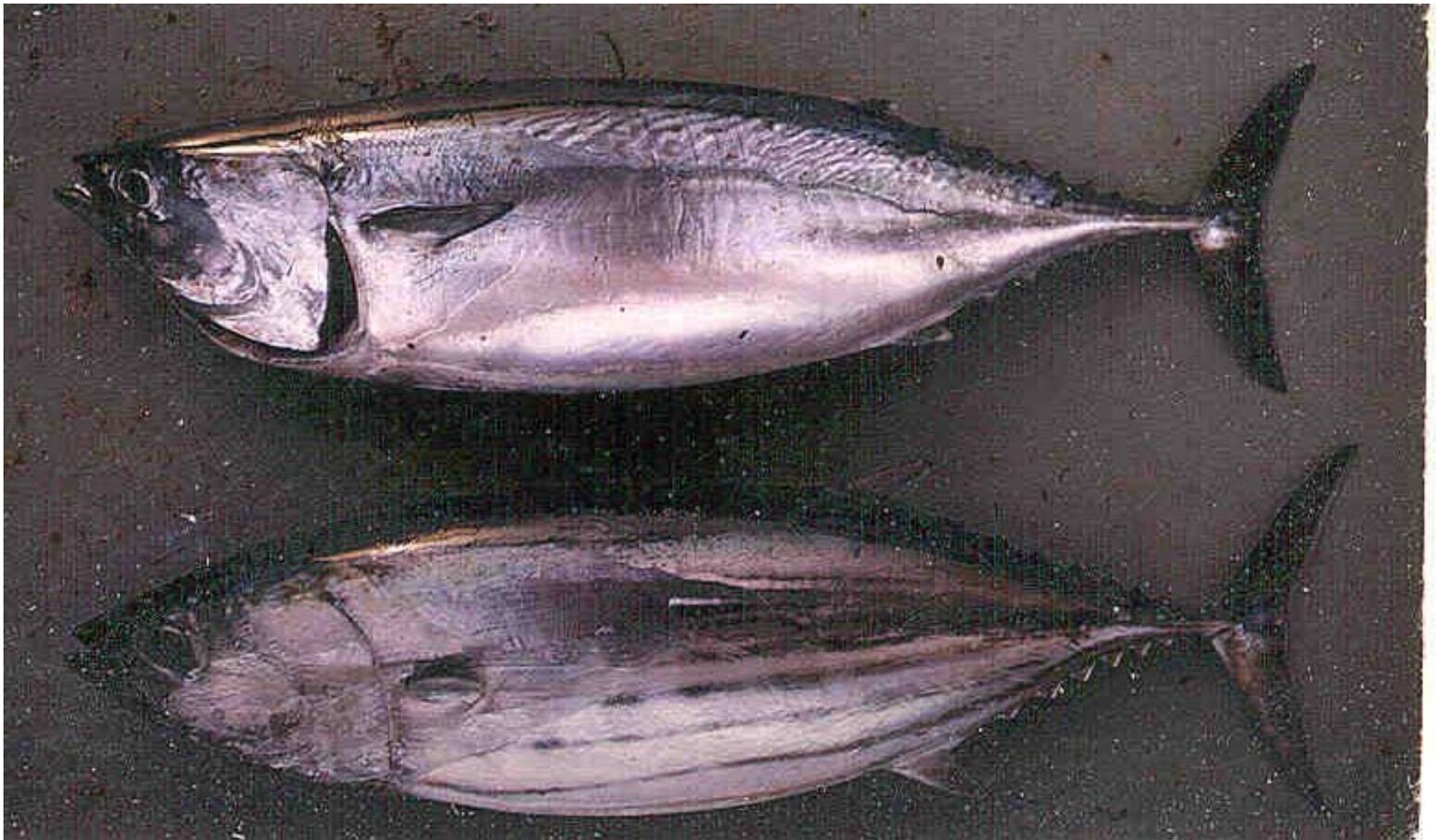




Skipjack



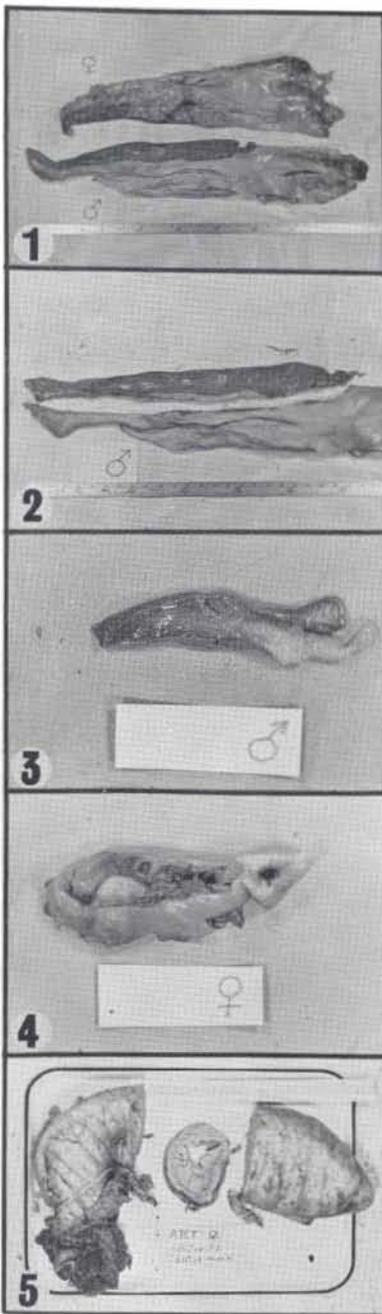
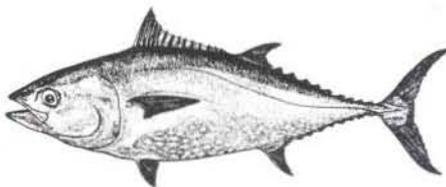
Little tunny



top: Atlantic bonito
bottom: Skipjack

SEX DETERMINATION

GIANT ATLANTIC BLUEFIN TUNA



*SPENT OR UNRIPE GIANT TUNA:

The ovary or testis on each side is about 2-ft (600-mm) long and 2½-ins (60-mm) wide, and attached on the posterior part of a large mass of fatty tissue that is about 1½ times as long and 2½ to 3 times as wide as the gonad.

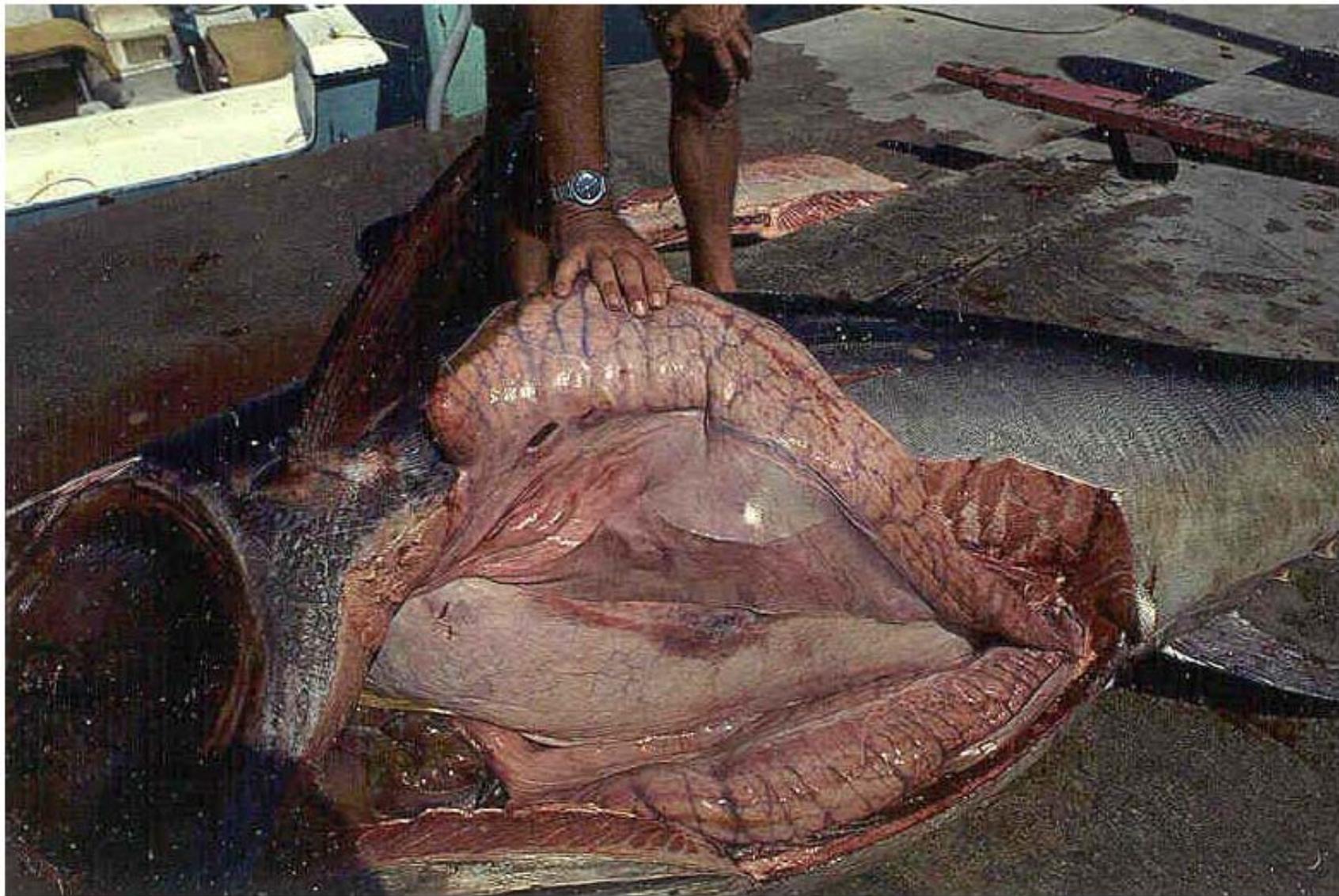
1. Gonads with connected fat mass of unripe female (above) and male (below).
2. Testis of male (from #1) cut away from the fat mass.
3. Testis cross-section (male from #1-2) with no median lumen and relatively smooth internal tissue.
4. Ovary cross-section (female from #1) with a large and irregular median lumen and slightly granular internal tissue.

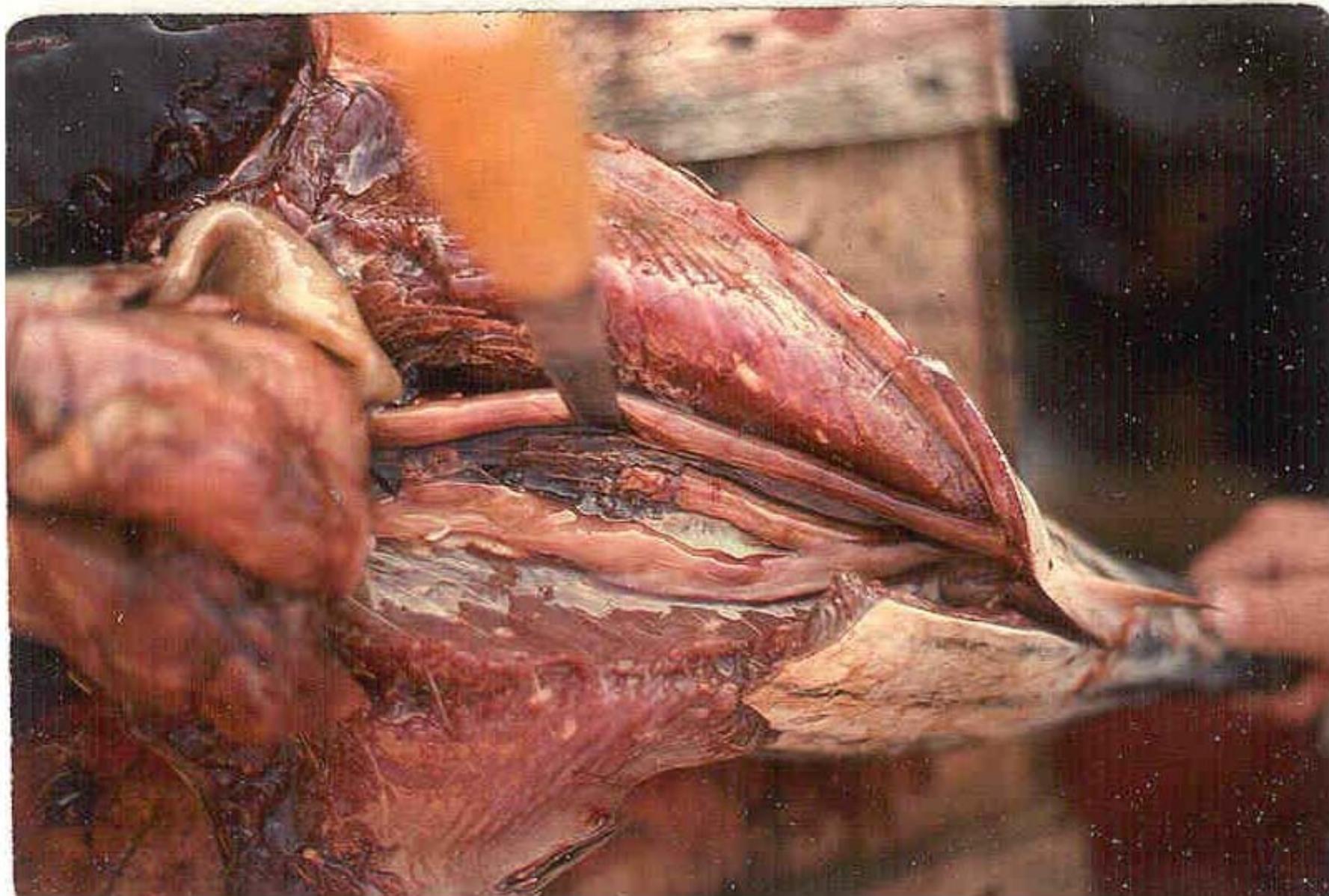
*RIPE GIANT TUNA:

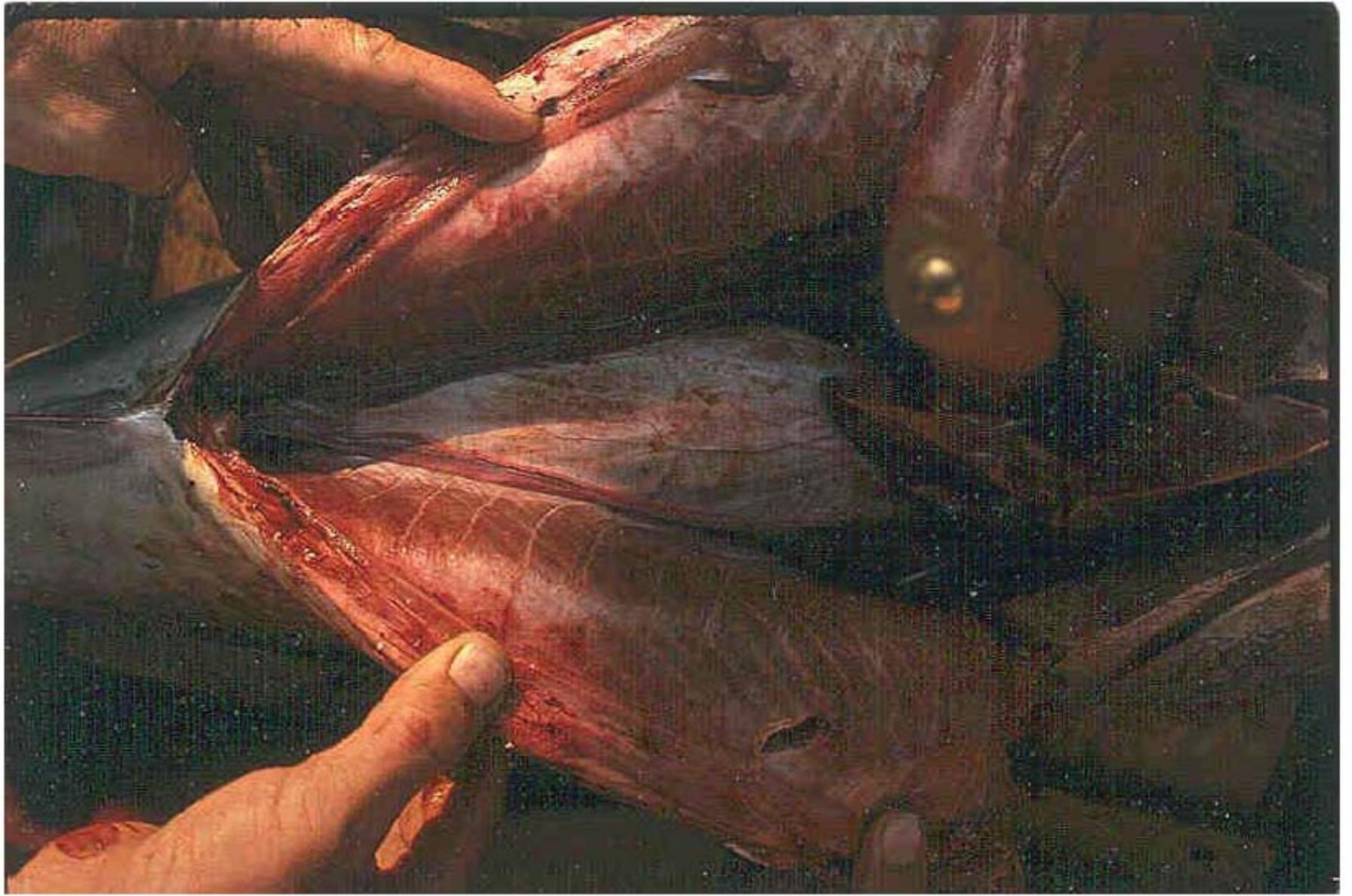
The ovary and testis on each side are much larger, with a relatively smaller fat mass than in spent or unripe giants and the lumen and granular tissue of the ovary are more pronounced.

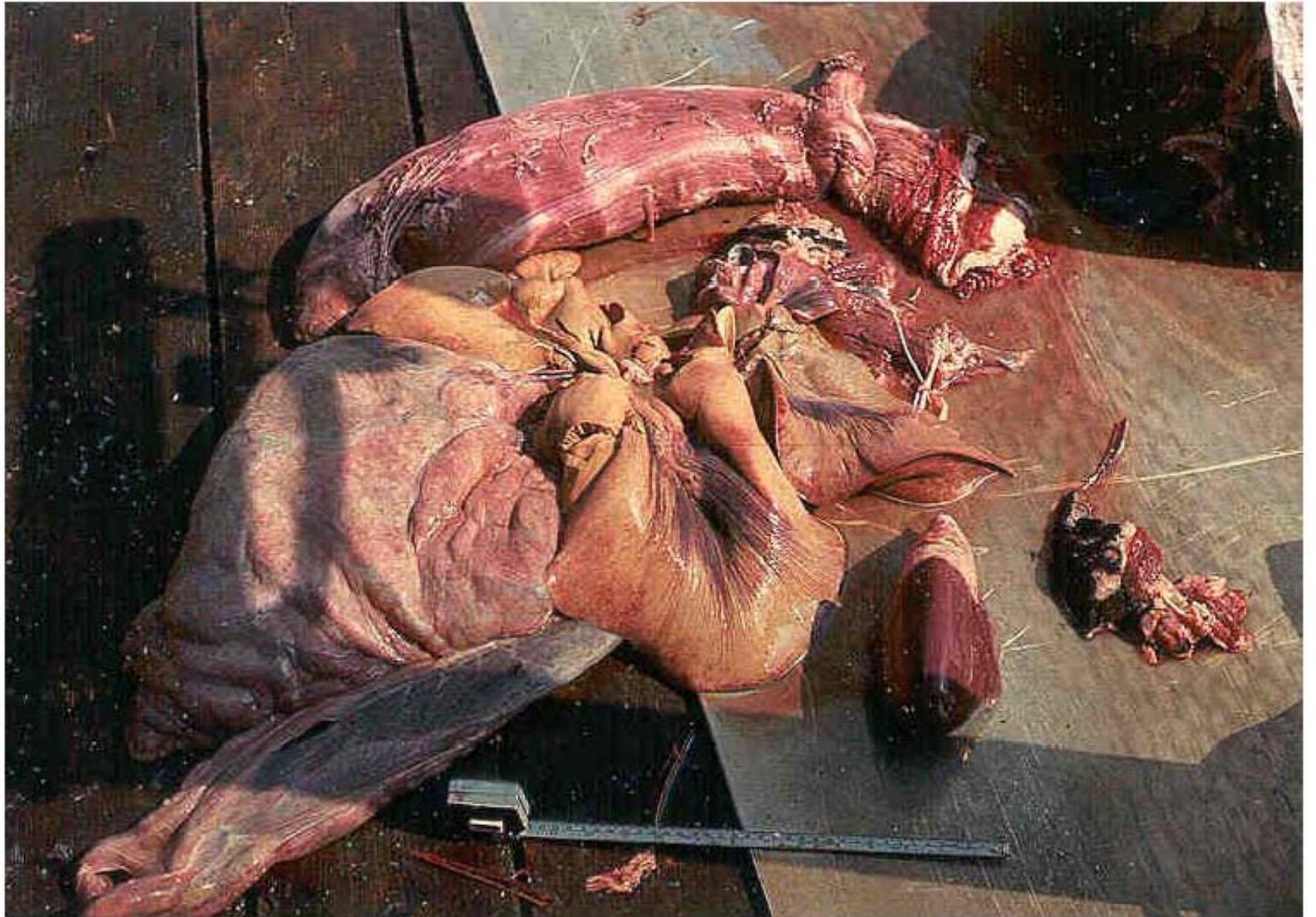
5. Ovary of a ripe female giant tuna.

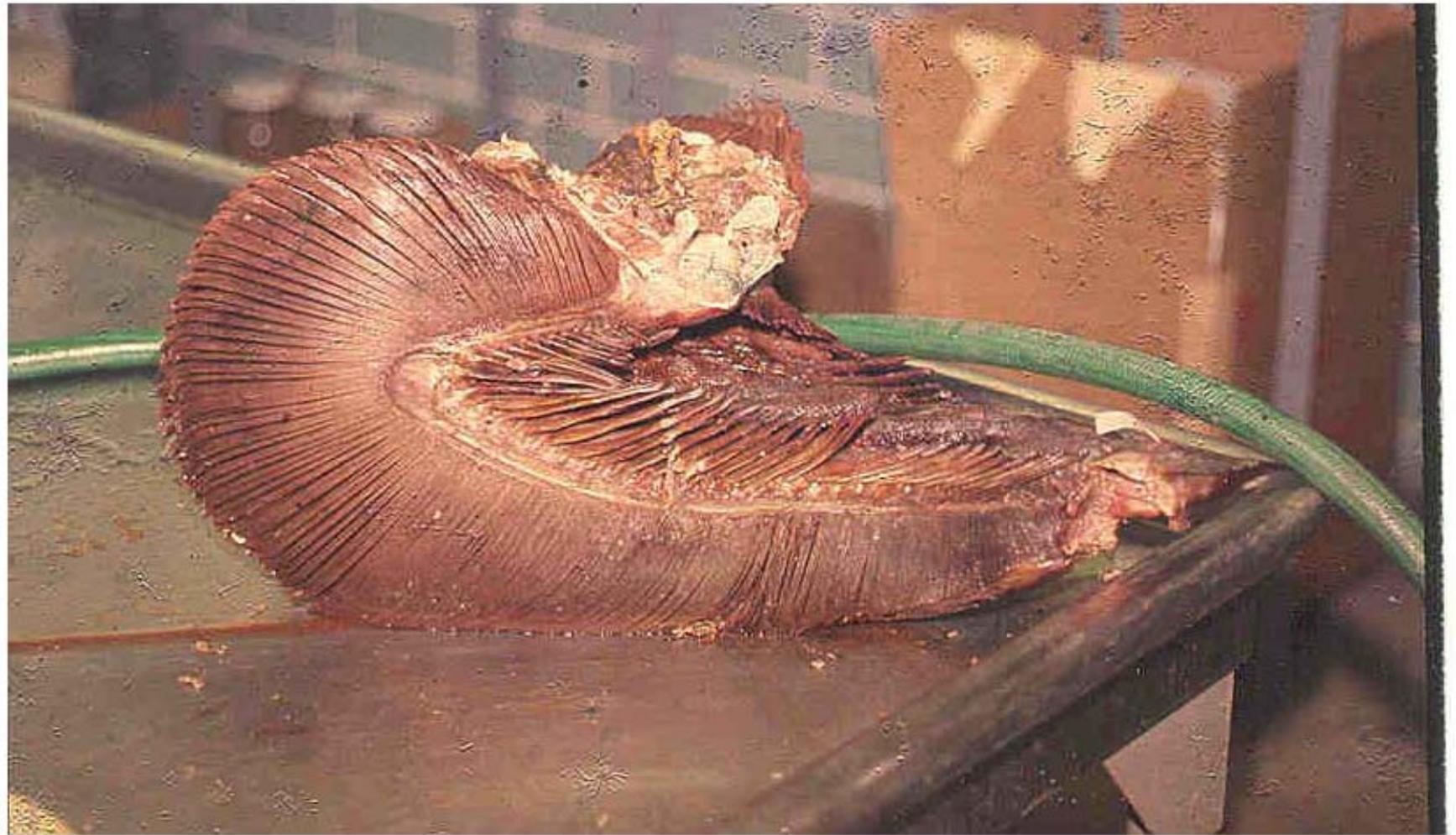
ATLANTIC BLUEFIN TUNA PROGRAM
Southeast Fisheries Center
National Marine Fisheries Service
75 Virginia Beach Drive
Miami, Florida 33149 USA











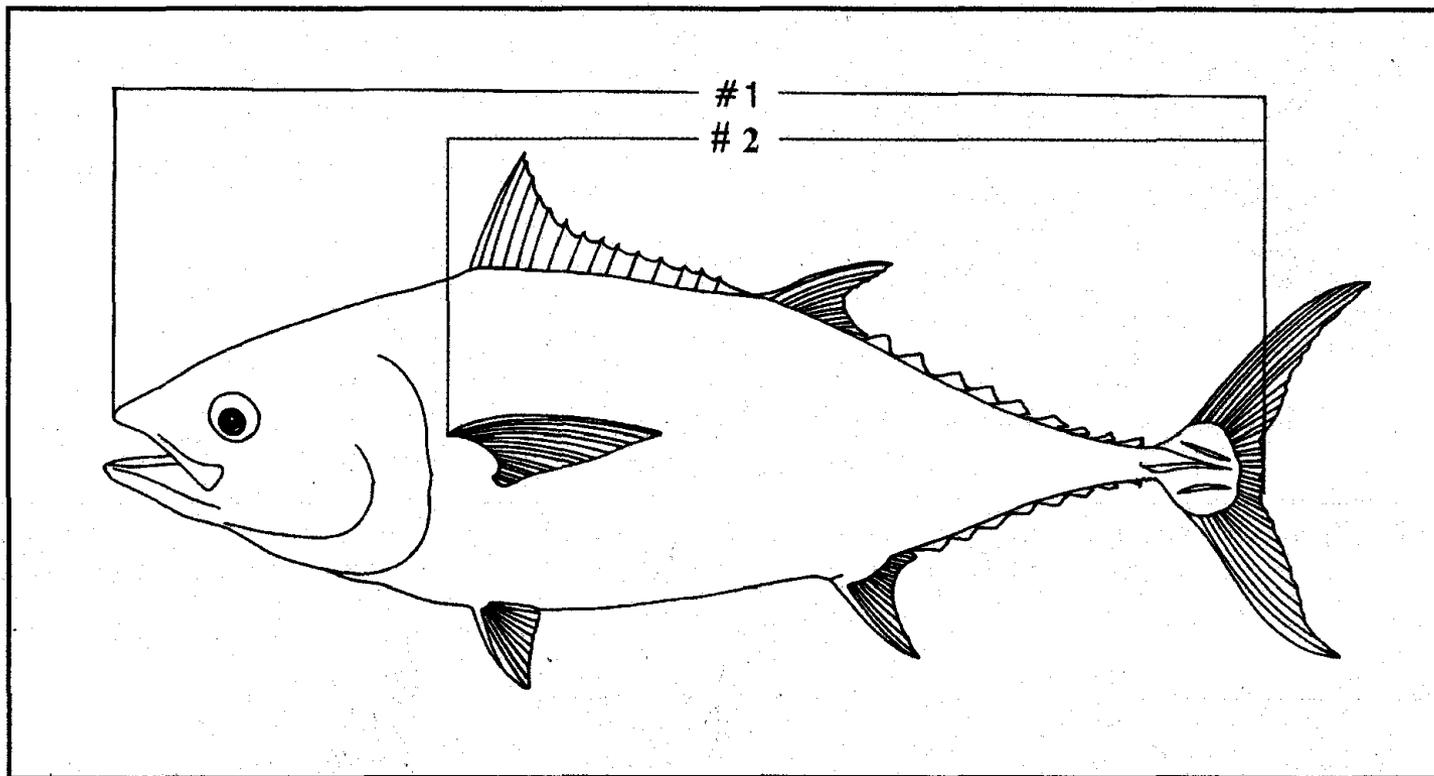
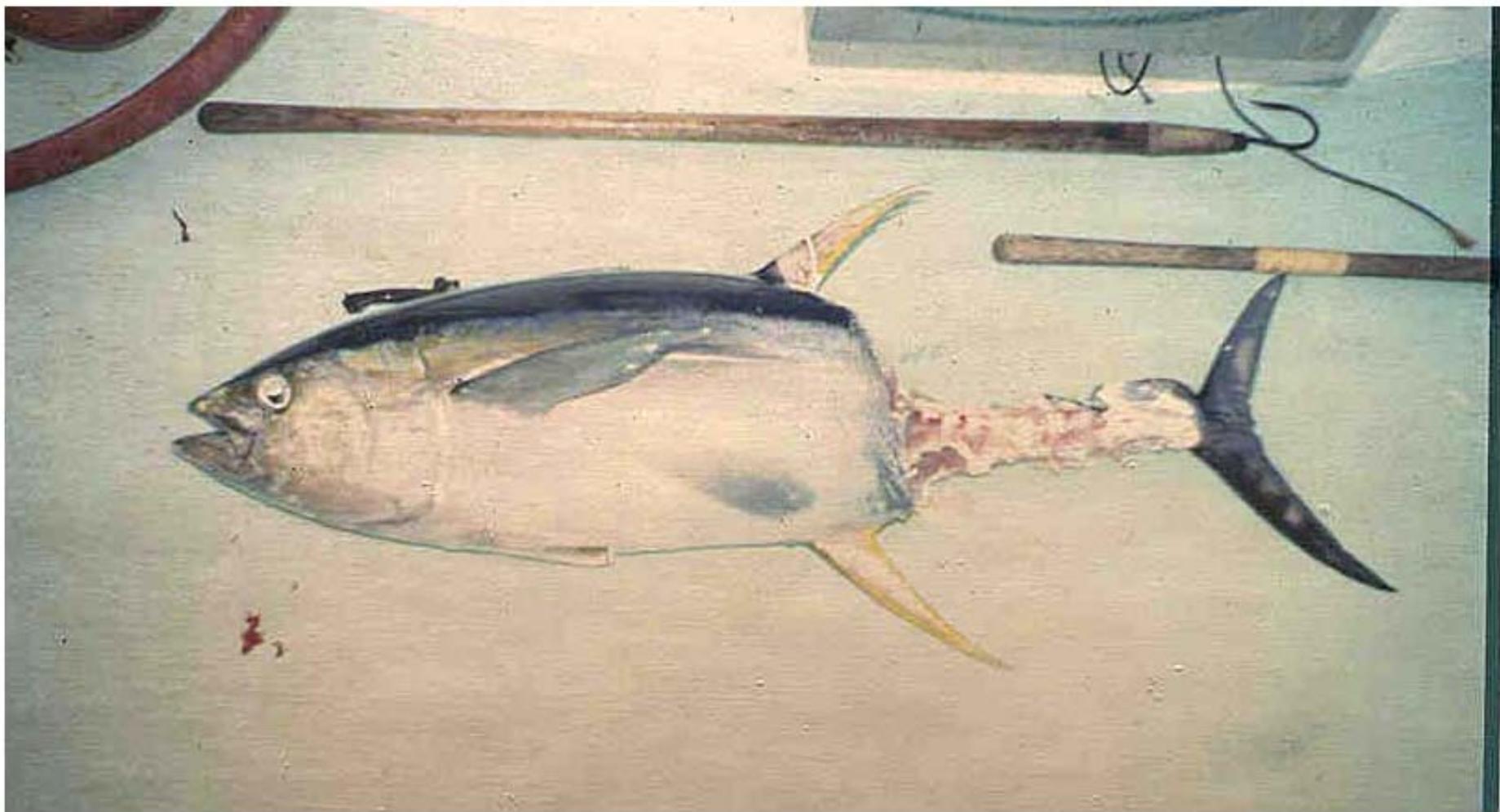


Figure 2. Tuna measurements: #1 Tip of upper jaw to fork of tail (straight); #2 Anterior insertion of pectoral fin to fork of tail (straight)



Regulations

- YFT and BET
minimum size: 69 cm
(27") *curved* FL
- No retention limits or
quotas for BAYS
tunas (BET, ALB,
YFT, and SKJ)
- BFT minimum size:
185 cm (73") *curved*
FL
- Subject to quota
openings
- Retention limits vary
by geographic location
and season