THE SCIENTIFIC REPORTS OF THE WHALES RESEARCH INSTITUTE, TOKYO, JAPAN

NUMBER 1, JUNE 1948

- Akiya, S. and Tejima, S. Studies on Digestive Enzyme in Whale. 3-7
- Akiya, S., Ishikawa, Y., Tejima, S. and Tanazawa, T. Studies on Tryptase from a Whale (Balaenoptera Borealis L.) 8-10
- Akiya, S., Tejima, S. and Ishikawa, Y. Studies on the Utilization of Whale Meat by the use of Pancreatic Tryptase of Whales, 11-14
- Akiya, S. and Kobo, F. The Test Culture of Some Microorganisms with Whale Meat Peptone. 15-16
- Nakai, T. Chemical Studies on the Freshness of Whale Meat. I. Evaluation of Freshness and Changes in Quantity of Several Kinds of Nitrogen in Whale Meat Following Deterioration of Freshness. 17-26
- Nakai, T. Chemical Studies on the Freshness of Whale Meat. II. On Comparison between Whale Meat and Beef on Deteioration of Freshness and Autolysis. 27-30
- Tawara, T. On the Simultaneous Extraction of Vitamin A-D and Vitamin B₂ Complex from the Liver of a Fin Whale (Nagasu-Kujira, Balaenoptera physalus L.) 31-37
- Tawara, T. Studies on Whale Blood. I. On the Separation of Histidine from Whale Blood. 38-40
- Nakai, J. and Shida, T. Sinus-hairs of the Sei-Whale (Balaenoptera-borealis). 41-47

NUMBER 2, DECEMBER 1948

- Ogawa, T. and Arifuku, S. On the Acoustic System in the Cetacean Brains. 1-20
- Yamada, M. Auditory Organ of the Whalebone Whales. (Preliminary Report) 21-30
- Nakai, T. Chemical Studies on the Freshness of Whale Meat. III. Effect of Hydrogen-ion Concentration on Decrease in Freshness and Titration Curve of Whale Meat with HCl and Na₂CO₃. 31-34
- Ishikawa, S., Omote, Y. ann Soma, Y. Analytical Distillation of Vitamin A in the Whale Liver Oil. 35-41
- Ishikawa, S., Omote, Y. and Kanno, H. Molecular Distillation of Sperm Whale Blubber Oil. 42-45
- Kaneko, A. Molecular Distillation of Fin Whale Liver Oil. 46-50
- Akiya, S. and Takahashi, K. Determination of Tryptophane in Whale Meat. 51-54
- Ishikawa, Y. and Tejima, S. Protein Digestive Power of Sperm Whale Pancreatic Enzyme 55-60
- Tsukamoto, S. Experiment on Digestion of Whale Meat by Koji-mould. 61-66

NUMBER 3, FEBRUARY 1950

- Ogawa, T. and Shida, T. On the Sensory Tubercles of Lips and of Oral Cavity in the Sei and the Fin Whales. 1-16
- Ohe, T. Distribution of the Red Marrow in Bones of the Fin Whale. 17-22
- Hosokawa H. On the Cetacean Larynx, with Special Remarks on the Laryngeal Sack of the Sei Whale and the Aryteno-Epiglottideal Tube of the Sperm Whale. 23-62
- Akiba, T., Tsuchiya, T., Umehara, M. and Natsume, Y. Bacteriological Studies on Freshness of Whale Meat. (Report No. 1). 63-70
- Ishikawa, Y. Protein Digestive Power of Sperm Whale Pancreatic Enzyme. II. 71-78
- Mori, T. and Saiki, M. Properties of Fats and Oils Contained in Various Parts of a Sperm Whale Body. 79-84

- Tawara, T. and Fukazawa, R. Studies on Kitol. I. Preparation of Kitol from Whale Liver Oil. 85-88
- Tawara, T. and Fukazawa, R. Studies on Kitol. II. Influence of Kitol Fraction on the Determination of the International Unit of Vitamin A. 89-91
- Tawara, T. and Fukazawa, R. Studies on Kitol. III. The effect of Sunlight, Air and Heat on the Vitamin A and Kitol Fractions. 92-95
- Tawara, T. On the Respiratory Pigments of Whale (Studies on Whale Blood II.) 96-101 Yoshida, M. Research on Methionine in Whale. 102-105
- Mizue, K. Factory Ship Whaling Around Bonin Islands in 1948. 106-118
- Mizue, K. and Jimbo, H. Statistic Study of Foetuses of Whales. 119-131
- Nishiwaki, M. and Hayashi, K. Biological Survey of Fin and Blue Whales Taken in the Antarctic Season 1947-48 by the Japanese Fleet. 132-190

NUMBER 4, AUGUST 1950

- Omura, H. On the Body Weight of Sperm and Sei Whales located in the Adjacent Waters of Japan. 1-13
- Omura, H. Diatom Infection on Blue and Fin Whales in the Antarctic Whaling Area V (the Ross Sea Area). 14-26
- Omura, H. Whales in the Adjacent Waters of Japan. 27-113
- Nishiwaki, M. Determination of the Age of Antarctic Blue and Fin Whales by the Colour Changes in Crystalline Lens. 115-161
- Nishiwaki, M. Age Characteristics in Baleen Plates. 162-183
- Nishiwaki, M. On the Body Weight of Whales. 184-209

NUMBER 5, JUNE 1951

- Akiba, T., Umehara, M. and Natsume, Y. Bacteriological Studies on Freshness of Whale Meat. (Report No. II). 1-4
- Hosokawa, H. On the Pelvic Cartilages of the Balaenoptera-Foetuses, with Remarks on the Specifical and Sexual Difference. 5-15
- Ohe, T. Iconography on the Abdominal Cavity and Viscera of the Balaenoptera, with Special Remarks upon the Peritoneal Coverings. 17-39
- Akiya, S. and Hoshino, O. Isolation of Histidine from Whale Blood Using 3, 4-Dichlorobenzene Sulfonic Acid. 41-47
- Tawara, T. and Fukazawa, R. Studies on Kitol. IV. Purification of Kitol by Chromatographie. 49-51
- Ishikawa, S., Omote, Y. and Okuda, H. Substances Related to Vitamin A in the Whale Liver Oil. 53-59
- Ishikawa, S., Omote, Y., Kijima, M. and Okuda, H. Thermal Decomposition of Kitol. 61-69 Mizue, K. Grey Whales in the East Sea Area of Korea. 71-79
- Mizue, K. Food of Whales (In the Adjacent Waters of Japan). 81-90
- Nishiwaki, M. and Ohe T. Biological Investigation on Blue Whales (Balaenoptera musculus) and Fin Whales (Balaenoptera physalus) Caught by the Japanese Antarctic Whaling Fleets. 91-167

NUMBER 6, DECEMBER 1951

- Hosokawa, H. On the Extrinsic Eye Muscles of the Whale, with Special Remarks upon the Innervation and Function of the Musculus Retractor Bulbi. 1-33
- Murata, T. Histological Studies on the Respiratory Portions of the Lungs of Cetacea. 35-47

- Kojima, T. On the Brain of the Sperm Whale (Physeter catodon L.). 49-72
- Mizue, K. and Murata, T. Biological Investigation on the Whales Caught by the Japanese Antarctic Whaling Fleets Season 1949-50. 73-131
- Nishiwaki, M. On the Periodic Mark on the Baleen Plates as the Sign of Annual Growth. 133-152
- Nishiwaki, M. and Hibiya, T. On the Sexual Maturity of the Sperm Whales (*Physeter catodon*) found in the Adjacent Waters of Japan (I). 153-165
- Nakai, T. Chemical Studies on Freshness of Whale Meat. IV. Some informations of Achromobacter ubiquitum isolated from Whale Carcass. 167-176
- Nakai, T. and Ono, H. The Effects of Electric Shock and Fatigue on Post-mortem Changes in Muscle. 177-185
- Omote, Y. Complete Recovery of Vitamin A from Molecular Distillation Residue of Whaleliver Oil. 187-191
- Omote, Y. Chemical Structure of Kitol (I). Double Bonds and Hydroxyl Groups. 193-198 Hirata, M. Experimental Investigation on Flattened Head Harpoon an Attempt for Restraining Ricochet. 199-207

NUMBER 7, JULY 1952

- Ogawa, T. On the Cardiac Nerves of Some Cetacea, with Special Reference to those of Berardius Bairdii Stejneger. 1-22
- Akiya, S., Hoshino, O. and Motohashi, N. On an Attempt to Preserve Whale Meat Freshness with 5-Nitrofurfuriden Aminoguanidine from Decay. 23-30
- Akiya, S. and Sawamura, R. Colorimetric Determination of 5-Nitro-2 furfuridene Aminoguanidine. 31-36
- Tomiyama, S. and Takao, M. Studies on Utilization of Higher Fatty Alcohol from Sperm Whale Oil. 37-46
- Omote, Y. A Rapid Method for the Separate Determination of Vitamin A and Kitol in the Whale-liver Oil. 47-50
- Arai, Y. and Sakai, S. Whale Meat in Nutrition. 51-67
- Yamaguchi, K. and Fujino, K. On the Serological Constitution of Striped Dolphin (Prodel-phinus caeruleo-albus (Meyen)) (I). 69-77
- Nishimoto, S., Tozawa, M. and Kawakami, T. Food of Sei Whales (Balaenoptera borealis)

 Caught in the Bonin Island Waters. 79-85
- Nishiwaki, M. On the Age-Determination of Mystacoceti, Chiefly Blue and Fin Whales. 87-119
- Nishiwaki, M. and Hibiya, T. On the Sexual Maturity of the Sperm Whales (*Physeter catodon*) Found in the Adjacent Waters of Japan (II). 121-124
- Ohno, M. and Fujino, K. Biological Investigation on the Whales Caught by the Japanese Antarctic Whaling Fleets, Season 1950/51, 125-188

NUMBER 8, JUNE 1953

- Yamada, M. Contribution to the Anatomy of the Organ of Hearing of Whales. 1-79
- Omura, H. Biological Study on Humpback Whales in the Antarctic Whaling Areas IV and V. 81-102
- Fujino, K. On the Serological Constitution of the Sei-, Fin-, Blue- and Humpback-Whales (I). 103-125
- Ogawa, T. On the Presence and Disappearance of the Hind Limb in the Cetacean Embryos. 127-132

- Nishiwaki, M. and Yagi, T. On the Age and the Growth of Teeth in a Dolphin, *Prodel-phinus caeruleo-albus*). (I). 133-146
- Kakuwa, Z., Kawakami, T. and Iguchi, K. Biological Investigation on the Whales Caught by the Japanese Antarctic Whaling Fleets in the 1951-52 Season. 147-213
- Nishiwaki, M. Hermaphroditism in a Dolphin (Prodelphinus caeruleo-albus). 215-218

NUMBER 9, JUNE 1954

- Akiya, S., Hoshino, O. and Motohashi, N. Attempt to Preserve Freshness of Whale Meat with Germicides. II. 1-10
- Ogawa, T. On the Musculature of the Sinus Venosus and its Continuation with the Socalled Conducting System of the Whale's Heart. 11-35
- Yamada, M. Some Remarks on the Pygmy Sperm Whale, Kogia. 37-58
- Yamada, M. An Account of a Rare Propose, Feresa Gray from Japan. 59-88
- Omura, H. and Fujino, K. Sei Whales in the Adjacent Waters of Japan. II. Further Studies on the External Characters. 89-103
- Fujino, K. On the Serological Constitution of the Sperm- and Baired Beaked-Whales (I) Blood Groups of the Sperm- and Baired Beaked-Whales. 105-120
- Fujino, K. On the Body Proportions of the Fin Whales (Balaenoptera physalus (L) Caught in the Northern Pacific Ocean (I) (Preliminary Report). 121-163
- Nishiwaki, M., Hibiya, T. and Kimura, S. On the Sexual Maturity of the Sei Whale of the Bonin Waters. 165-177
- Uda, M. Studies of the Relation between the Whaling Grounds and the Hydrographical Conditions (I). 179-187

NUMBER 10, JUNE 1955

- Hosokawa, H. Cross-Section of a 12 mm. Dolphin Embryo. 1-68
- Nemoto, T. White Scars on Whales (I) Lamprey Marks. 69-77
- Omura, H. and Nemoto, T. Sei Whales in the Adjacent Waters' of Japan. III. Relation between Movement and Water Temperature of the Sea. 79-87
- Omura, H., Fujino, K. and Kimura, S. Beaked Whale Beradius bairdi of Japan, with Notes on Ziphius cavirostris. 89-132
- Fujino, K. On the Body Weight of the Sei Whales Located in the Adjacent Waters of Japan (II). 133-141
- Nishiwaki, M. On the Sexual Maturity of the Antarctic Male Sperm Whale (*Physeter catodon L.*). 143-149
- Ohta, K. and Others. Composition of Fin Whale Milk. 151-167

NUMBER, 11, JUNE 1956

- Omura, H. and Sakiura, H. Studies on the Little Piked Whale from the Coast of Japan. 1-37
- Nishiwaki, M., Hibiya, T. and Kimura, S. On the Sexual Maturity of the Sperm Whale (*Physeter catodon*) Found in the North Pacific. 39-46
- Fujino, K. On the Body Proportions of the Sperm Whales (Physeter catodon). 47-83
- Fujino, K. On the Serological Constitution of the Fin Whales II. Further Studies on Blood Groups, 85-98
- Nemoto, T. On the Diatoms of the Skin Film of Whales in the Northern Pacific. 99-132

- Hoshina, T. and Sugiura, Y. On a Skin Disease and a Nematode Parasite of a Dolphin, *Tursiops truncatus* (Montagu, 1821). 133-138
- Iwai, E. Descriptions on Unidentified Species of Dibranchiate Cephalopods. I. An Oegopsiden Squid belonging to the Genus *Architeuthis*. 139-151
- Iwai, E. Descriptions on Unidentified Species of Dibranchiate Cephalopods. II. A Cranchiidae Squid of the Genus Taonius. 153-161
- Uda, M. and Nasu, K. Studies of the Whaling Grounds in the Northern Sea-Region of the Pacific Ocean in Relation to the Meteorological and Oceanographic Conditions. (Part I). 163-179
- Kimura, S. and Nemoto, T. Note on a Minke Whale Kept Alive in Aquarium. 181-189 Ishikawa, Y. A Characteristic Property of Whale Oils concerning the Absorption of Gases. I. On the Absorption of Carbon Dioxide by Whale Oils. 191-213

NUMBER 12, JUNE 1957

Omura, H. Osteological Study of the Little Piked Whale from the Coast of Japan. 1-21 Nishiwaki, M. Age Characteristics of Ear Plugs of Whales. 23-32

Nemoto, T. Foods of Baleen Whales in the Northern Pacific. 33-89

Nasu, K. Oceanographic Conditions of the Whaling Grounds in the Waters Adjacent to Aleutian Islands and the Bering Sea in Summer of 1955, 91-101

Kimura, S. The Twinning in Southern Fin Whales. 103-125

Ichihara, T. An Application of Linear Discriminant Function to External Measurements of Fin Whale. 127-189

Nishiwaki, M. Very Small Embryo of Cetacea. 191-192

Nishiwaki, M. One-eyed Monster of Fin Whale. 193-195

Ogawa, T. and Kamiya, T. A Case of the Cachalot with Protruded Rudimentary Hind Limbs. 197-208

Uda, M. and Dairokuno, A. Studies of the Relation between the Whaling Grounds and the Hydrographic Conditions. (II) A study of the Relation between the Whaling Grounds off Kinkazan and the Boundary of Water Masses. 209-224

Abe, T. Notes on Fishes from the Stomachs of Whales Taken in the Antarctic. I. Xenocyttus nemotoi, a New Genus and New Species of Zeomorph Fish of the Subfamily Oreosominae (Goode and Bean, 1895). 225-233

Tsuyuki, H. On the Oils Contained in Various Blubbers of Northern Elephant Seal, *Mirounga* angustirostris. 235-240

NUMBER 13, SEPTEMBER 1958

Omura, H. North Pacific Right Whale. 1-52

Nishiwaki, M. and Kamiya, T. A Beaked Whale *Mesoplodon* Stranded at Ōiso Beach, Japan. 53-83

Nishiwaki, M. and Handa, C. Killer Whales Caught in the Coastal Waters off Japan for Recent 10 Years. 85-96

Ohsumi, S. (Kimura), Nishiwaki, M. and Hibiya, T. Growth of Fin Whale in the Northern Pacific. 97-133

Nishiwaki, M., Hibiya, T. and Ohsumi, S. (Kimura). Age Study of Sperm Whale Based on Reading of Tooth Laminations. 135-153

Nishiwaki, M., Ichihara, T. and Ohsumi, S. (Kimura). Age Studies of Fin Whale Based on Ear Plug. 155-169

Fujino, K. On the Serological Constitution of Fin Whale III. Human B Blood Group Sub-

stances in Erythrocytes and Some Notes on Anti-fin Ju Specific Antibodies. 171-184

Nemoto, T. Cocconeis Diatoms Infected on Whales in the Antarctic. 185-191

Nemoto, T. and Nasu, K. Thysanoëssa macrura as a Food of Baleen Whales in the Antarctic. 193-199

Ichihara, T. Gray Whale Observed in the Bering Sea. 201-205

Ohsumi, S. (Kimura). A Descendant of Moby Dick or a White Sperm Whale. 207-209

Nasu K. Deformed Lower Jaw of Sperm Whale, 211-212

Omura, H. Note on Embryo of Baird's Beaked Whale. 213-214

Uda, M. and Suzuki, N. Studies of the Relation between the Whaling Grounds and the Hydrographic Conditions. III. 215-229

Seki, Y. Observations on the Spinal Cord of the Right Whale. 231-251

Kamiya, T. How to Count the Renculi of the Cetacean Kidneys, with Special Regard to the Kidney of the Right Whale. 253-267

Hosokawa, H. and Sekino, T. Comparison of the Size of Cells and Some Histological Formations between Whales and Man. 369-301

Ogawa, T., Tsunoda, T. and Osawa, M. Amino Acid Composition of Whale Meat. 303-307 Ishikawa, Y. A Characteristic Property of Whale Oils Concerning the Absorption of Gases II. On the Absorption of Nitrogen by Whale Oils. 309-321

Tsuyuki, H. Component Fatty Acids of Northern Elephant Seal Oil. 323-332

NUMBER 14, SEPTEMBER 1959

Omura, H. Bryde's Whales from the Coast of Japan. 1-33

Nishiwaki, M. and Kamiya, T. Mesoplodon stejnegeri from the Coast of Japan. 35-48

Nishiwaki, M. Humpback Whales in Ryukyuan Waters. 49-87

Cushing, John E., Fujino, K. and Takahashi, K. Glycerol-freezing Technique as an Aid in Blood Typing of Whales. 89-100

Fujino, K. and Cushing, John E. Blood Typing of Dried Whale Erythrocytes with ¹³¹I Labelled Antibody. 101-106

Ichihara, T. Formation Mechanism of Ear Plug in Baleen Whales in Relation to Glovefinger, 107-135

Nasu, K. · Surface Water Condition in the Antarctic Whaling Pacific Area in 1956-57. 137-143

Ohsumi, S. (Kimura) A Deformed Fin Whale Fetus, 145-147

Nemoto, T. Food of Baleen Whales with Reference to Whale Movements. 149-290

Yamada, M. and Yoshizaki, F. Osseous Labyrinth of Cetacea. 291-304

Nakai, T. Distribution of Amino Acid in Proteins from Various Parts of Whale Body. 305-326

NUMBER 15, NOVEMBER 1960

NISHIWAKI, M. Ryukyuan humpback whaling in 1960. 1-16

OHSUMI, S. Relative growth of the fin whale, Balaenoptera physalus (Linn). 17-84

FUJINO, K. Immunogenetic and marking approaches to identifying subpopulations of the North Pacific whales. 85-142

NASU, K. Oceanographic investigation in the Chukchi sea during the summer of 1958. 143-158

TOKITA, K. and ECG RESEARCH GROUP. Electrocardiographical studies on bottlenosed dolphin (*Trusiops truncatus*). 159-165