

TEXAS STATE VITA

I. Academic/Professional Background

A. Name: Francis R. Horne Title: Professor of Biology

B. Educational Background

Degree	Year	University	Major	Thesis/Dissertation
BS	1962	Texas Tech University, Lubbock, Texas	Zoology/botany	NA
MS	1964	University of Wyoming, Laramie, Wyoming	Physiology	Thesis
PhD	1966	University of Wyoming, Laramie, Wyoming	Physiology/biochemistry	Dissertation
NA	1961	University of Oklahoma Biological Station	NA	NA
NA	1964	Duke University Marine Laboratory	NA	NA
NA	1966	University of Miami Marine Laboratory	NA	NA

C. University Experience

Position	University	Dates
NSF Summer student	University of Oklahoma Biological Station	1961
Postdoctoral Fellowship-NIH	University of Miami Marine Laboratory	1966-67
Laboratory Instructor	Texas Tech University	1960-62
Research Assistant	Texas Tech University	1965
NSF summer student	Duke University Marine Laboratory	1964
Professor of Biology	Texas State University	1967-present

D. Relevant Professional Experience

Position	Entity	Dates
NSF Summer award	U. of Oklahoma	1961
NDEA Fellowship	Univ. of Wyoming	1962-1966
NSF Summer award	Duke Univ. Marine Laboratory	1964
NIH Postdoctoral Fellow	Marine Lab Univ. Miami, Florida	1966-67

NSF Research Grants	Texas St. Univ.	1969-1971
NSF Research Grants	Texas St. Univ.	1992-1994

II. TEACHING

A. Teaching Honors and Awards:

Alphi Chi Teaching award-1995 and 1997.

B. Courses Taught:

1) Have taught large sections of both botany and zoology for majors. Taught large undergraduate sections of Biol. 1320 for non-majors & Biol. 2430 (A&P) for both majors and non-majors. Taught Biol. 3421 (Vert. Physiol.), Biol. 4442 (Instruments) & Biol. 4450 (Physiol. Ecol.). **These are the courses that make the money for the department so all can conduct research.** I was pulling the wagon, not riding in it, 2) Have had many graduate students and undergraduate students doing research.

C. Graduate Theses/Dissertations or Exit Committees (if supervisor, please indicate):

D. Courses Prepared and Curriculum Development:

1) Botany, 2) Zoology, 3) General Biology, 4) Anatomy and Physiology, 5) Comparative Physiology, 6) Experimental Techniques, 7) Vertebrate Physiology, 8) Osmotic and Ionic Regulation, 9) Physiological Ecology.

E. Funded External Teaching Grants and Contracts:

Competitive Funded National Grants:

Two NSF Grants 1969 & 1992 Funded

One NSF approved for funding but not funded. 1973

One NIH approved for funding but not funded. 1974

One Internal Biological Program (IBP) Grant approved for funding
but program cancelled by Congress after running 10 years.

Several Grants (NSF) applied for but not funded in 1990s

Sea Grant Research Program

Texas Sponsored Projects Grants: Many in 1970s & 1980s.

F. Submitted, but not Funded, External Teaching Grants and Contracts:

One NSF approved for funding but not funded. 1973

One NIH approved for funding but not funded. 1974

One Internal Biological Program (IBP) Grant approved for funding

but program cancelled by Congress after running 10 years.
 Several Grants (NSF) applied for but not funded in 1990s
 Sea Grant Research Program

G. Funded Internal Teaching Grants and Contracts:

NA

H. Submitted, but not Funded, Internal Teaching Grants and Contracts:

NA

III. SCHOLARLY/CREATIVE

A. Works in Print

d. Chapters in Books:

_____ F. R. and S. Tarsitano, **2007**. The mineralization and biomechanics of the exoskeleton. Chapter 8: In: *Crustacean Issues: The Biology and Fisheries of Slipper Lobsters*, pp. 183-198.

2. Articles

a. Refereed Journal Articles: (*37 in 18 Different National and International Journals*):

_____ F. R. and K.L. Lavalli, **2008**. Aspects of mineralization of the crayfish cuticle. *Crustaceana*. IN PRESS.

_____ F. R. and N. Strenth, **2007**. Identification key for the common ostracods of the playa lakes of the llano estacado. **Texas Journal of Science**. 59(4):291-300.

_____ F. R. and S. Tarsitano, **2007**. The mineralization and biomechanics of the exoskeleton. Chapter 8: In: *Crustacean Issues: The Biology and Fisheries of Slipper Lobsters*, pp. 183-198.

_____ F. R. , with E. Spanier, Tarsitano, S.F., K.L. Lavalli. **2006**. The constructional properties of the exoskeleton of homarid, scyllarid, and palinurid lobsters. **Hydrobiologia**, **557:9-20**.

_____, F. R. **2006**. Ask The Experts, **SCIENTIFIC AMERICAN**, InterNet posting, December 6. Hard copy, Scientific American, 1-07.

_____ F. R. Horne, S. Tarsitano, and K. Lavalli, **2002**. Carbonic anhydrase in freshwater crayfish cuticle mineralization. *Crustaceana* **75(9)**: 1067-1081.

- _____. F. R. with Tarsitano, S., A. R. Russell, C. Plummer, and K. Millerchip. **2000**. On the evolution of feathers from an aerodynamic and constructional view point. **American Zoologist**, 40:676-686.
- _____. F. R. and Ari Kahn. **2000**. Water loss and viability in *Zizania* (Poaceae) seeds during short term desiccation. **American J. Botany**, 87(11): 1707-1711.
- _____. F. R. and Ari Kahn. **1997**. Phylogeny of wild rice, a theory. **The Southwestern Naturalist**. 44:423-434.
- _____. F. R. 1996. Ostracods of the playa lakes of the Llano Estacado of Texas. **The Southwestern Naturalist**. 4(2); 375-381.
- _____. F. R. **1993**. Survival strategy to escape desiccation in a freshwater ostracod, **Crustaceana** 65(1):53-61.
- _____. F. R. et al. **1992**. Recent Introduction and potential impact of the giant rams-horn snail into the Comal Springs ecosystem. **The Southwestern Naturalist**, 37: 194-196.
- _____. **1980**. Comparative aspects of estivating metabolism in the aquatic gastropod, *Marisa*. **Comp. Biochem. Physiol.** 64A:309-311.
- _____. **1979**. Purine production during fasting in slugs. **J. Experimental Zool.** 209:309-316.
- _____. **1979**. Factors influencing distribution of mussels in the Blanco River of Central Texas. **Nautilus** 94:119-133.
- _____. **1977**. Uretelism in the slug, *Limax flavus* Linne. **J. Experimental Zoology**, 119:227-232.
- _____. **1977**. Aspects of fasting metabolism in the desert tortoise, *Gopherus berlandieri*. **Comp. Biochem. Physiol.** 58B: 21-26.
- _____. **1977**. The distribution of river shrimp in the Guadalupe and San Marcos Rivers of Central Texas. **Crustaceana**, 33:56-60.
- _____. **1976**. Regulation of urea biosynthesis in the slug, *Limax flavus* Linne. **Comparative Biochem. and Physiol.** 56:63-69.
- _____. **1975**. The utilization of foodstuffs and urea production by a land snail during estivation. **Biol. Bull.** 144:321-335.
- _____. **1974**. Phyllopods of some southern high plains saline playas. **Southwestern Nat.**19:465-484.
- _____. **1973**. The utilization of foodstuffs and urea production by a land snail during estivation. **Biol. Bull.** 144:321-330.
- _____. **1973**. Urea metabolism in an estivating terrestrial snail, *Bulimulus dealbatus*. **Amer. J. Physiol.** 224:781-787.
- _____. **1973**. Physicochemical features of hemoglobin in the crustacean, *Triops longicaudatus*. **Arch. Biochem. Biophysics**, 161:369-374.
- _____. **1971**. Some effects of temperature and oxygen concentration on phyllogod ecology. **Ecology**. 52:343-347.
- _____. **1971**. Accumulation of urea by a pulmonate snail during aestivation. **Comparative Biochemistry and Physiology**, 220:1875-1881.
- _____. **1971**. Physiological properties of hemoglobin in the branchiopod crustacean *Triops*. **Amer. J. Physiol.** 220:1875-1881.
- _____, F. R. and Viroj Boonkoom. **1970**. The distribution of the ornithine cycle enzymes in thirteen gastropods. **Comparative Biochemistry and Physiology**, 88:141-153.
- _____, F. R. and G. Barnes. **1970**. Reevaluation of urea biosynthesis in prosobranch and pulmonate snails. **Zeitschrift fur Vergleichende Physiologie**, 69:452-457.
- _____, F. R. and W. Baze. **1970**. Ureogenesis in chelonia. **Comparative Biochemistry and Physiology**, 34:91-100.
- _____, F. R. **1969**. Purine excretion in five scorpions, a uropygid and a centipede.

Biological Bulletin, 127:155-160.

_____, F. R. **1968**. Quantification of sodium uptake in the alpine fairy shrimp, *Chirocephalopsis bundyi*. **Crustaceana**, 14:271-274.

_____, F. R. **1968**. Survival and ionic regulation in the notostracan, *Triops longicaudatus*, in various salinities. **Physiological Zoology**, 41:180-186.

_____, F. R. **1968**. Quantification of sodium uptake in the alpine fairy shrimp, *Chirocephalopsis bundyi*. **Crustaceana**, 14:271-274.

_____, F. R. **1968**. Survival and ionic regulation in the notostracan, *Triops longicaudatus*, in various salinities. **Physiological Zoology**, 41:180-186.

_____, F. R. **1968**. Nitrogen excretion in crustacea - I. The herbivorous land crab, *Cardisoma guanhumii* latreille. **Comparative Biochemistry and Physiology**, 26:637-645. Nitrogen excretion in crustacea - I. The herbivorous land crab, *Cardisoma guanhumii* latreille. **Comparative Biochemistry and Physiology**, 26:637-645.

_____, F. R. **1967**. Effects of physiological-chemical factors on the distribution and occurrence of some Southeastern Wyoming phyllopods. **Ecology** 48: 472-477.

_____, F.R. **1966**. The effects of digestive enzymes on the hatchability of *Artemia salina* eggs. **Transactions of the American Microscopical Society**, 75:271-274.

_____, F. R. **1966**. Some aspects of ionic regulation in the tadpole shrimp, *Triops longicaudatus*. **Comparative Biochemistry and Physiology**, 14:313-316.

b. Non-refereed Articles:

NA to science

3. Abstracts:

Presentations and abstracts (Published and Unpublished) presented at Regional and National Scientific Meetings by myself and students: 1997 to 2008 only, 1967 to 1997 not included.

Horne, F.R. and K. Souther. 1997. Phylogeny of the crustaceans, *Triops* (tadpole shrimp) and *Cyzicus* (clam shrimp). American Association for the Advancement of Science (AAAS), Texas A&M University, College Station, Texas.

Horne, F.R. 1997. Use of scientific equipment in undergraduate science teaching. American Association for the Advancement of Science (AAAS), Texas A&M University, College Station, Texas.

Horne, F.R. and A. Kahn. 1997. Phylogeny of North American wild rices based on nuclear rDNA Sequences. American Association for the Advancement of Science (AAAS), Texas A&M, College Station, Texas.

Horne, Francis. 1997 Comparison of isozymes in three North american wild rices. Southwest and Rocky Mountain division of American Association for the Advancement of Science 68th Annual Meeting, University of Arizona.

Horne, Francis. 1997. Phylogeny of North american wild rices. Southwestern Association of Naturalists, 45th Annual Meeting, University of Arkansas.

Kahn, Ari and Francis Horne. 1998. Phylogeny of North american wildrices based on nuclear rDNA sequences. Southwestern Association of Naturalists, 45th Annual Meeting, University of New Mexico.

- Horne, F. R. and Jacob Oder. 1998. Phylogeny of some phyllopod crustaceans. Texas Academy of Science, March 6, 1998, Tyler, Texas.
- Horne, F. R. and Anissa Reyes, 1998. Effects of drying on germination of wild rice seeds. Texas Academy of Science , March 6, 1998, Tyler, Texas.
- Horne, F. R. 1998. Strontium and calcium deposition in shells. Texas Academy of Science , March 6, 1998, Tyler, Texas.
- Horne, F. R. 1998. Effects of drought on wild rice phylogeny. American Association of Scientists (SWRAAAS) Meetings, May, 1998, Grand Junction, Colo.
- Horne, F. R. and Ari Kahn. 1998. Phylogeny of Zizania using DNA sequences. American Association of Scientists (SWRAAAS) Meetings, May, 1998, Grand Junction, Colorado.
- Horne, Francis. 1998. Effects of desiccation on survival and germination of wild rice seeds. . Southwestern Association of Naturalists, 45th Annual Meeting, University of New Mexico.
- Caldwell, Sara, **Francis Horne** and Samuel Taristano. 1999. Mechanism for shell deposition in the marine oyster *Crassostrea*. Texas Academy of Sciences, 102^h Annual Meeting, Southwest Texas State University.
- Oder, Jak., **Francis Horne** and Samuel Taristano. 1999. Mechanism for shell deposition in the freshwater snail, *Marisa*.. Texas Academy of Sciences, 102^h Annual Meeting, Southwest Texas University.
- Horne, Francis, Sam Tarsitano, Kari Lavalli, and Julie Pevehouse. 2000. Mineral deposition in shells. Texas Academy of Sciences, 102^h Annual Meeting, Texas A&M University, Kingsville.
- Horne, Francis, S. Tarsitano and K. Lavalli. 2000. The vinegaroon and life in the desert. Southwestern Association of Naturalists, 47th Annual Meeting, Fort Hays University.
- Horne, Francis, S. Tarsitano, C. Plummer and David Rodriquez. 2000. Role of carbonic anhydrase in the mineralization of the lobster exoskeleton. 6th International conference and Workshop on Lobster Biology and Management., Key West, Florida. P.90.
- Tarsitano, S, F. Horne, K. Millerchip, and David Rodriquez. 2000. New light on the evolution of feathers. 5^h European Workshop on Vertbrate Palaeotology, Karlsruhe, Germany. Pp. 82.
- Horne, F. R. 2000. Nitrogen excretion in the vinegaroon. American Association for the Advancement of Science, Southwestern and Rocky Mountain Division, New Mexico State University, Las Cruces.
- Horne, Francis, S. Tarsitano, C. Plummer, and David Rodriquez. 2000. The mineralization of the animal skeleton. 5^h European Workshop on Vertbrate Palaeotology, Karlsruhe, Germany. Pp. 36.
- Plummer, Chris, **Francis Horne**, Samuel Tarsitano, and David Rodriquez,. 2001. Insights into the mineralization of bone. Texas Academy of Sciences, 104^h Annual Meeting, Southwest Texas State University.
- Plummer, Chris, **Francis Horne**, and Samuel Tarsitano,. 2001. Calcium carbonate deposition in the spiny lobster. Texas Academy of Sciences, 104^h Annual Meeting, Southwest Texas State University.
- Talbert, Kiersten, **Francis Horne**, and Samuel Taristano. 2001, Mechanism for calcium carbonate deposition in the avian egg. Texas Academy of Sciences, 104^h Annual Meeting, Southwest Texas State University.
- Horne, Francis. 2002. Mineralization de la concha de invertbrados – un mecanismo. Southwestern Association of Naturalists, 45th Annual Meeting, University of Morales, Cuernavaca, Morales, Mexico.
- Tarsitano, S., K.L. Lavalli, **F. Horne**, and D. Rodriquez. 2002. Spiny lobsters: A model for horn

- development in ceratopsian dinosaurs. 31^h Annual Benthic Ecology Meeting, Florida State University, March 2002.
- Tarsitano, S., K.L. Lavalli, **F. Horne**, and E. Spanier. 2002. Biomechanical aspects of the lobster carapace. 8^h Colloquium Crustacea Decapoda Mediterranea, Ionian University, Corfu Island, Greece.
- Horne, Francis, Kim Crystal, Mary Gentry, and S. Tarsitano. 2003. Shell formation in two freshwater mussels. Texas Academy of Sciences, 106th Annual Meeting, Stephen F. Austin University, Nacogdoches. P. 37.
- Horne, Francis, and S. Tarsitano. 2003. Amniote egg shell formation. Texas Academy of Sciences, 106th Annual Meeting, Stephen F. Austin University, Nacogdoches. P. 37.
- Tarsitano, Samuel, Cassie Malcom, Chris. Plummer, and **Francis Horne**. 2003. Texas Academy of Sciences, 106th Annual Meeting, Stephen F. Austin University, Nacogdoches. P. 39.
- Horne, Francis. 2003. Egg shell formation in the American alligator. .Southwestern Association Naturalists, 46th Annual Meeting, University of Oklahoma, Norman. P. 39.
- Lavalli, K. L., W. F. Hernkind, M. Childress, A. Evans, and F. Horne. 2003. Attack by piscine predators, *Balistes capricus*. Texas Academy of Sciences, 106th Annual Meeting, Stephen F. Austin University, Nacogdoches. PP. 41-42.
- Horne, Francis R. 2004. Comparative Biomineralization of eggshells in birds and alligators. Southwestern Association of Naturalists, 51th Annual Meeting, San Antonio, Texas. P. 94-95.
- Horne, Francis R. 2004. Aspects of Eggshell formation in Birds and Crocodilia, Texas Academy of Sciences, 107th Annual Meeting, Schreiner . University, Kerrville. P. 16 & 23.
- *Horne, Francis R. 2004. Carbonic anhydrase in the alligator eggshell. Society of Integrative and Comparative Biology, 2004 Annual Meeting, New Orleans, La. P. 107.
- Horne, Francis R. 2004. Biomineralization of egg shells in the American alligator. Texas Academy of Sciences, 107th Annual Meeting, Schreiner University, Kerrville. P. 17.
- Horne, Francis R. 2005. Carbonic Anhydrase in the Decapod cuticle presented at the Annual Meeting of Texas Academy of Science, University of Texas at Edinberg. P. 49.
- Horne, Francis R. 2005. Carbonic Anhydrase in the Decapod cuticle presented at the Annual Meeting of Texas Academy of Science, University of Texas at Edinberg. P. 49.
- Horne, F. R. 2005. Cuticle Mineralization in Aquatic Crustaceans, presented at the Annual meeting of Southwestern Association of Naturalists, Sam Houston State University, Huntsville. P. 94.
- *Horne, F. 2005. Localization of Carbonic Anhydrase in the crustacean cuticle, presented at Annual meeting of Society of Integrative and Comparative Biology, San Diego, California. p. 107.
- *Horne, F. 2005. Carbonic anhydrase in the molting slipper lobster, *Scyllariides latus*, cuticle, presented at Annual Meeting of Society of Integrative and Comparative Biology, Orlando, Florida. p. 88.
- Horne, F. and K.L. Lavalli. 2006. Aspects of mineralization of the crayfish cuticle. Crustaceana (In preparation, 2007).
- Horne, F. 2006. Carbonic anhydrase in molting cuticles of slipper lobsters, *SCYLLARIDES LATUS*, Texas Academy of Science 109th Annual Meeting, Lamar Univ., Beaumont, p. 47.
- Horne, F. 2006. Southwestern Association of Naturalists annual Meeting University of

Colima, Colima, Mexico.

- Horne, F. 2006. Carbonic anhydrase in the freshwater clam, *Quadrula apiculata*. presented at Annual Meeting of Society of Integrative and Comparative Biology, Phoenix, Arizona. p. 96.
- Horne, F. 2007. Carbonic anhydrase in the freshwater clam, *Quadrula apiculata*. presented at Annual Meeting of Society of Integrative and Comparative Biology, Phoenix, Arizona. p. 96.
- Horne, F. 2007. Shell formation in freshwater mussels. Texas Academy of Science 110th Annual Meeting, Baylor University, Waco, Texas, p. 82.
- Horne, F. 2008. Freshwater crayfish cuticle mineralization. Texas Academy of Science 111th Annual Meeting, Texas A&M University, Corpus Christi, p. 47.

4. Reports:

NA to science

5. Book Reviews:

6. Other:

B. Works not in Print

1. Papers Presented at Professional Meetings:

- Horne, F.R. and K. Souther. 1997. Phylogeny of the crustaceans, *Triops* (tadpole shrimp) and *Cyzicus* (clam shrimp). American Association for the Advancement of Science (AAAS), Texas A&M University, College Station, Texas.
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- Oder, Jak,, **Francis Horne** and Samuel Taristano. 1999. Mechanism for shell deposition in the freshwater snail, Marisa.. Texas Academy of Sciences, 102^h Annual Meeting, Southwest Texas University.
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- Tarsitano, S., K.L. Lavalli, **F. Horne**, and E. Spanier. 2002. Biomechanical aspects of the lobster

- carapace. 8th Colloquium Crustacea Decapoda Mediterranea, Ionian University, Corfu Island, Greece.
- Horne, Francis, Kim Crystal, Mary Gentry, and S. Tarsitano. 2003. Shell formation in two freshwater mussels. Texas Academy of Sciences, 106th Annual Meeting, Stephen F. Austin University, Nacogdoches. P. 37.
- Horne, Francis, and S. Tarsitano. 2003. Amniote egg shell formation. Texas Academy of Sciences, 106th Annual Meeting, Stephen F. Austin University, Nacogdoches. P. 37.
- Tarsitano, Samuel, Cassie Malcom, Chris. Plummer, and **Francis Horne**. 2003. Texas Academy of Sciences, 106th Annual Meeting, Stephen F. Austin University, Nacogdoches. P. 39.
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- Lavalli, K. L., W. F. Hernkind, M. Childress, A. Evans, and F. Horne. 2003. Attack by piscine predators, *Balistes capriscus*. Texas Academy of Sciences, 106th Annual Meeting, Stephen F. Austin University, Nacogdoches. PP. 41-42.
- Horne, Francis R. 2004. Comparative Biomineralization of eggshells in birds and alligators. Southwestern Association of Naturalists, 51th Annual Meeting, San Antonio, Texas. P. 94-95.
- Horne, Francis R. 2004. Aspects of Eggshell formation in Birds and Crocodilia, Texas Academy of Sciences, 107th Annual Meeting, Schreiner . University, Kerrville. P. 16 & 23.
- *Horne, Francis R. 2004. Carbonic anhydrase in the alligator eggshell. Society of Integrative and Comparative Biology, 2004 Annual Meeting, New Orleans, La. P. 107.
- Horne, Francis R. 2004. Biomineralization of egg shells in the American alligator. Texas Academy of Sciences, 107th Annual Meeting, Schreiner University, Kerrville. P. 17.
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- Horne, Francis R. 2005. Carbonic Anhydrase in the Decapod cuticle presented at the Annual Meeting of Texas Academy of Science, University of Texas at Edinberg. P. 49.
- Horne, F. R. 2005. Cuticle Mineralization in Aquatic Crustaceans, presented at the Annual meeting of Southwestern Association of Naturalists, Sam Houston State University, Huntsville. P. 94.
- *Horne, F. 2005. Localization of Carbonic Anhydrase in the crustacean cuticle, presented at Annual meeting of Society of Integrative and Comparative Biology, San Diego, California. p. 107.
- *Horne, F. 2005. Carbonic anhydrase in the molting slipper lobster, *Scyllariides latus*, cuticle, presented at Annual Meeting of Society of Integrative and Comparative Biology, Orlando, Florida. p. 88.
- Horne, F. and K.L. Lavalli. 2006. Aspects of mineralization of the crayfish cuticle. Crustaceana (In preparation, 2007).
- Horne, F. 2006. Carbonic anhydrase in molting cuticles of slipper lobsters, *SCYLLARIDES LATUS*, Texas Academy of Science 109th Annual Meeting, Lamar Univ., Beaumont, p. 47.
- Horne, F. 2006. Southwestern Association of Naturalists annual Meeting University of Colima, Colima, Mexico.
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- Phoenix, Arizona. p. 96.
- Horne, F. 2007. Carbonic anhydrase in the freshwater clam, *Quadrula apiculata*. presented at Annual Meeting of Society of Integrative and Comparative Biology, Phoenix, Arizona. p. 96.
- Horne, F. 2007. Shell formation in freshwater mussels. Texas Academy of Science 110th Annual Meeting, Baylor University, Waco, Texas, p. 82.
- Horne, F. 2008. Freshwater crayfish cuticle mineralization. Texas Academy of Science 111th Annual Meeting, Texas A&M University, Corpus Christi, p. 47.

2. Invited Talks, Lectures, Presentations:

- Horne, F.R. and K. Souther. 1997. Phylogeny of the crustaceans, *Triops* (tadpole shrimp) and *Cyzicus* (clam shrimp). American Association for the Advancement of Science (AAAS), Texas A&M University, College Station, Texas.
- Horne, F.R. 1997. Use of scientific equipment in undergraduate science teaching. American Association for the Advancement of Science (AAAS), Texas A&M University, College Station, Texas.
- Horne, F.R. and A. Kahn. 1997. Phylogeny of North American wild rices based on nuclear rDNA Sequences. American Association for the Advancement of Science (AAAS), Texas A&M , College Station, Texas.
- Horne, Francis. 1997 Comparison of isozymes in three North american wild rices. Southwest and Rocky Mountain division of American Association for the Advancement of Science 68th Annual Meeting, University of Arizona.
- Horne, Francis. 1997. Phylogeny of North american wild rices. Southwestern Association of Naturalists, 45th Annual Meeting, University of Arkansas.
- Kahn, Ari and Francis Horne. 1998. Phylogeny of North american wildrices based on nuclear rDNA sequences. Southwestern Association of Naturalists, 45th Annual Meeting, University of New Mexico.
- Horne, F. R. and Jacob Oder. 1998. Phylogeny of some phyllopod crustaceans. Texas Academy of Science, March 6, 1998, Tyler, Texas.
- Horne, F. R. and Anissa Reyes, 1998. Effects of drying on germination of wild rice seeds. Texas Academy of Science , March 6, 1998, Tyler, Texas.
- Horne, F. R. 1998. Strontium and calcium deposition in shells. Texas Academy of Science , March 6, 1998, Tyler, Texas.
- Horne, F. R. 1998. Effects of drought on wild rice phylogeny. American Association of Scientists (SWRAAAS) Meetings, May, 1998, Grand Junction, Colo.
- Horne, F. R. and Ari Kahn. 1998. Phylogeny of *Zizania* using DNA sequences. American Association of Scientists (SWRAAAS) Meetings, May, 1998, Grand Junction, Colorado.
- Horne, Francis. 1998. Effects of desiccation on survival and germination of wild rice seeds. . Southwestern Association of Naturalists, 45th Annual Meeting, University of New Mexico.
- Caldwell, Sara, **Francis Horne** and Samuel Taristano. 1999. Mechanism for shell deposition in the marine oyster *Crassostrea*. Texas Academy of Sciences, 102^h Annual Meeting, Southwest Texas State University.
- Oder, Jak., **Francis Horne** and Samuel Taristano. 1999. Mechanism for shell deposition in the freshwater snail, *Marisa*.. Texas Academy of Sciences, 102^h Annual Meeting, Southwest Texas University.
- Horne, Francis, Sam Tarsitano, Kari Lavalli, and Julie Pevehouse. 2000. Mineral deposition in

- shells. Texas Academy of Sciences, 102^h Annual Meeting, Texas A&M University, Kingsville.
- Horne, Francis, S. Tarsitano and K. Lavalli. 2000. The vinegaroon and life in the desert. Southwestern Association of Naturalists, 47th Annual Meeting, Fort Hays University.
- Horne, Francis, S. Tarsitano, C. Plummer and David Rodriguez. 2000. Role of carbonic anhydrase in the mineralization of the lobster exoskeleton. 6th International conference and Workshop on Lobster Biology and Management., Key West, Florida. P.90.
- Tarsitano, S, F. Horne, K. Millerchip, and David Rodriguez. 2000. New light on the evolution of feathers. 5^h European Workshop on Vertebrate Palaeotology, Karlsruhe, Germany. Pp. 82.
- Horne, F. R. 2000. Nitrogen excretion in the vinegaroon. American Association for the Advancement of Science, Southwestern and Rocky Mountain Division, New Mexico State University, Las Cruces.
- Horne, Francis, S. Tarsitano, C. Plummer, and David Rodriguez. 2000. The mineralization of the animal skeleton. 5^h European Workshop on Vertebrate Palaeotology, Karlsruhe, Germany. Pp. 36.
- Plummer, Chris, **Francis Horne**, Samuel Tarsitano, and David Rodriguez,. 2001. Insights into the mineralization of bone. Texas Academy of Sciences, 104^h Annual Meeting, Southwest Texas State University.
- Plummer, Chris, **Francis Horne**, and Samuel Tarsitano,. 2001. Calcium carbonate deposition in the spiny lobster. Texas Academy of Sciences, 104^h Annual Meeting, Southwest Texas State University.
- Talbert, Kiersten, **Francis Horne**, and Samuel Taristano. 2001, Mechanism for calcium carbonate deposition in the avian egg. Texas Academy of Sciences, 104^h Annual Meeting, Southwest Texas State University.
- Horne, Francis. 2002. Mineralization de la concha de invertbrados – un mecanismo. Southwestern Association of Naturalists, 45th Annual Meeting, University of Morales, Cuernavaca, Morales, Mexico.
- Tarsitano, S., K.L. Lavalli, **F. Horne**, and D. Rodriguez. 2002. Spiny lobsters: A model for horn development in ceratopsian dinosaurs. 31^h Annual Benthic Ecology Meeting, Florida State University, March 2002.
- Tarsitano, S., K.L. Lavalli, **F. Horne**, and E. Spanier. 2002. Biomechanical aspects of the lobster carapace. 8^h Colloquium Crustacea Decapoda Mediterranea, Ionian University, Corfu Island, Greece.
- Horne, Francis, Kim Crystal, Mary Gentry, and S. Tarsitano. 2003. Shell formation in two freshwater mussels. Texas Academy of Sciences, 106th Annual Meeting, Stephen F. Austin University, Nacogdoches. P. 37.
- Horne, Francis, and S. Tarsitano. 2003. Amniote egg shell formation. Texas Academy of Sciences, 106th Annual Meeting, Stephen F. Austin University, Nacogdoches. P. 37.
- Tarsitano, Samuel, Cassie Malcom, Chris. Plummer, and **Francis Horne**. 2003. Texas Academy of Sciences, 106th Annual Meeting, Stephen F. Austin University, Nacogdoches. P. 39.
- Horne, Francis. 2003. Egg shell formation in the American alligator. .Southwestern Association Naturalists, 46th Annual Meeting, University of Oklahoma, Norman. P. 39.
- Lavalli, K. L., W. F. Hernkind, M. Childress, A. Evans, and F. Horne. 2003. Attack by piscine predators, *Balistes capricus*. Texas Academy of Sciences, 106th Annual Meeting, Stephen F. Austin University, Nacogdoches.PP. 41-42.
- Horne, Francis R. 2004. Comparative Biomineralization of eggshells in birds and alligators. Southwestern Association of Naturalists, 51th Annual Meeting, San Antonio, Texas. P. 94-95.

- Horne, Francis R. 2004. Aspects of Eggshell formation in Birds and Crocodilia, Texas Academy of Sciences, 107th Annual Meeting, Schreiner . University, Kerrville. P. 16 & 23.
- *Horne, Francis R. 2004. Carbonic anhydrase in the alligator eggshell. Society of Integrative and Comparative Biology, 2004 Annual Meeting, New Orleans, La. P. 107.
- Horne, Francis R. 2004. Biomineralization of egg shells in the American alligator. Texas Academy of Sciences, 107th Annual Meeting, Schreiner University, Kerrville. P. 17.
- Horne, Francis R. 2005. Carbonic Anhydrase in the Decapod cuticle presented at the Annual Meeting of Texas Academy of Science, University of Texas at Edinberg. P. 49.
- Horne, Francis R. 2005. Carbonic Anhydrase in the Decapod cuticle presented at the Annual Meeting of Texas Academy of Science, University of Texas at Edinberg. P. 49.
- Horne, F. R. 2005. Cuticle Mineralization in Aquatic Crustaceans, presented at the Annual meeting of Southwestern Association of Naturalists, Sam Houston State University, Huntsville. P. 94.
- *Horne, F. 2005. Localization of Carbonic Anhydrase in the crustacean cuticle, presented at Annual meeting of Society of Integrative and Comparative Biology, San Diego, California. p. 107.
- *Horne, F. 2005. Carbonic anhydrase in the molting slipper lobster, *Scyllariides latus*, cuticle, presented at Annual Meeting of Society of Integrative and Comparative Biology, Orlando, Florida. p. 88.
- Horne, F. and K.L. Lavalli. 2006. Aspects of mineralization of the crayfish cuticle. Crustaceana (In preparation, 2007).
- Horne, F. 2006. Carbonic anhydrase in molting cuticles of slipper lobsters, *SCYLLARIDES LATUS*, Texas Academy of Science 109th Annual Meeting, Lamar Univ., Beaumont, p. 47.
- Horne, F. 2006. Southwestern Association of Naturalists annual Meeting University of Colima, Colima, Mexico.
- Horne, F. 2007. Carbonic anhydrase in the freshwater clam, *Quadrula apiculata*. presented at Annual Meeting of Society of Integrative and Comparative Biology, Phoenix, Arizona. p. 96.
- Horne, F. 2007. Shell formation in freshwater mussels. Texas Academy of Science 110th Annual Meeting, Baylor University, Waco, Texas, p. 82.
- Horne, F. 2008. Freshwater crayfish cuticle mineralization. Texas Academy of Science 111th Annual Meeting, Texas A&M University, Corpus Christi, p. 47.

3. Consultancies:

NA

4. Workshops:

NA

5. Other:

NA

C. Grants and Contracts

1. Funded External Grants and Contracts:

Two NSF Grants 1969 & 1992 Funded

2. Submitted, but not Funded, External Grants and Contracts:

One NSF approved for funding but not funded. 1973

One NIH approved for funding but not funded. 1974

One Internal Biological Program (IBP) Grant approved for funding
but program cancelled by Congress after running 10 years.

3. Funded Internal Grants and Contracts:

Many

4. Submitted, but not Funded, Internal Grants and Contracts:

Several

D. Fellowships, Awards, Honors:

IV. SERVICE

A. University:

Faculty senate, many committees

B. Departmental:

Many committees

C. Community:

Board of Tax Equalization for San Marcos ISD

D. Professional:

E. Organizations

1. Honorary:

1) AAAS, 2) AZS, 3) SICB, 4) TEXAS ACAD SCI, 5) SOUTHWESTERN ASSOC. NATURALISTS, 6) CRUSTACEAN SOC.

2. Professional:

1) AAAS, 2) AZS, 3) SICB, 4) TEXAS ACAD SCI, 5) SOUTHWESTERN ASSOC. NATURALISTS, 6) CRUSTACEAN SOC.

F. Service Honors and Awards:

Elected to faculty senate twice

Please note: For all entries, list most recent items first.