

7 Literaturverzeichnis

- Abel, S.M., Giguere, C., Consoli, A., Papsin, B. (2000):
The effect of aging on horizontal plane sound localization.
The Journal of the Acoustical Society of America 108 (2), 743-752.
- Althaus, T. (1982):
Die Welpenentwicklung beim Siberian Husky.
Universität Bern, Dissertation
- Au, W.W.L. (1997):
Echolocation in dolphins with a dolphin-bat comparison.
Bioacoustics 8, 137-162.
- Batteau, D.W. (1967):
The role of the pinna in human localization.
Proceedings of Royal of Society of London Series B 168, 158-180.
- Bauer, B.B., Rosenheck, A.J. (1967):
External ear replica for acoustic testing.
The Journal of the Acoustical Society of America 42 (1), 204-207.
- Benson, R W., Eldredge, D.H. (1955):
Variations in sound pressure produced in Guinea pig ears due to normal and abnormal eardrums.
The Journal of the Acoustical Society of America 27 (2), 373-375.
- Blauert, J. (1969/70):
Sound localization in the median plane.
Acustica 22, 205-213.
- Blauert, J. (1974):
Räumliches Hören.
Stuttgart: S. Hirzel Verlag.
- Blauert, J. (1985):
Räumliches Hören -Nachschrift- Neue Ergebnisse und Trends seit 1972.
Stuttgart: S. Hirzel Verlag.
- Blauert, J. (1997):
Räumliches Hören: 2. Nachschrift - Neue Ergebnisse und Trends seit 1982.
Stuttgart - Leipzig: S. Hirzel Verlag.
- Brown, C.H., Moody, D., Stebbins, W. (1982):
Vertical and horizontal sound localization in primates.
The Journal of the Acoustical Society of America 72 (6), 1804-1811.

- Brown, C.H. (1994):
Sound localization.
In: Fay, R.R., Popper, A.N. (ed): *Comparative Hearing: Mammals*
New York: Springer-Verlag. S. 57-96.
- Brunzlow, D. (1925):
Über die Fähigkeit der Schalllokalisation in ihrer Bedingtheit durch die Schallqualität und die Gestalt der Ohrmuschel.
Zeitschrift Sinnesphysiologie 56, 326-363.
- Buss, I.O., Estes, J.A. (1971):
The functional significance of movements and positions of the pinnae of the african elephant, *Loxodonta Africana*.
Journal of Mammalogy 52 (1), 21-27.
- Chandler, D.W., Grantham, D.W. (1992):
Minimum audible movement angle in the horizontal planes as a function of stimulus frequency and bandwidth, source azimuth, and velocity.
The Journal of the Acoustical Society of America 91 (3), 1624-1636.
- Chen, Q.-C., Cain, D., Jen, P.H.-S. (1995):
Sound pressure transformation at the pinna of *Mus Domesticus*.
Journal of experimental Biologie 198, 2007-2023.
- Coles, R.B., Guppy, A. (1986):
Biophysical aspects of directional hearing in the tammar wallaby, *Macropus Eugenii*.
Journal of experimental Biologie 121, 371-394.
- Coles, R.B., Guppy, A., Anderson, M.E. (1989):
Frequency sensitivity and directional hearing in the gleaning bat, *Plecotus Auritus* (Linnaeus 1758).
Journal of Comparative Physiology A 165, 269-280.
- Damaske, P. (1969/1970):
Richtungsabhängigkeit von Spektrum und Korrelationsfunktionen der an den Ohren empfangenen Signalen.
Acustica 22, 190-204.
- Damaske, P., Wagener, B. (1969):
Richtungshörversuche über einen nachgebildeten Kopf.
Acustica 21, 30-35.
- Dietz, O. (1996):
Spezielle Veterinärchirurgie.
Jena-Stuttgart: Gustav Fischer Verlag.
- Dietz, O., E. Henschel (1988):
Anästhesie und Operationen bei Groß- und Kleintieren.
Stuttgart: Ferdinand Enke Verlag.

- Drescher, D.G., Eldredge, D.H. (1974):
Species differences in cochlear fatigue related to acoustics of outer and middle ears of guinea pig and chinchilla.
The Journal of the Acoustical Society of America 56 (3), 929-934.
- Eger, C.E., Lindsay, P. (1997):
Effects of otitis on hearing in dogs characterised by brainstem auditory evoked response testing.
Journal of Small Animal Practice 38, 380-386.
- Ehert, G., Romand, R. (1981):
Postnatal development of absolute auditory thresholds in kittens.
Journal of Comparative and Physiological Psychology 95 (2), 304-311.
- Eisfeld, D. (1966):
Verhaltensbeobachtungen an einigen Wildcaniden.
Zeitschrift für wissenschaftliche Zoologie 174 (3/4), 225-289.
- Fattu, J. (1969):
Acoustic orientation of the rabbit pinna and external auditory meatus.
The Journal of the Acoustical Society of America (Abstract) 46 (1), 124.
- Feddersen, W. E., Sandel, T. T., Teas, D.C., Jeffress, L.A. (1957):
Localization of high-frequency tones.
The Journal of the Acoustical Society of America 29 (9), 988-991.
- Feddersen-Petersen, D., Ohl, F. (1995):
Ausdrucksverhalten beim Hund.
Jena – Stuttgart: Gustav Fischer Verlag
- Flynn, W.E., Elliott, D.N. (1965):
Role of the pinna in hearing.
The Journal of the Acoustical Society of America 38, 104-105.
- Fraser, G., Gregor, W.W., MacKenzie, C.P., Spreull, J.S., Withers, A.R. (1970):
Canine ear disease.
Journal of Small Animal Practice 10, 725-754.
- Fuzessery, Z.M. (1996):
Monaural and binaural spectral cues created by the external ears of the pallid bat.
Hearing Research 95, 1-17.
- Gardner, M.B., Gardner, R.S. (1973):
Problem of localization in the median plane: Effect of pinnae cavity occlusion.
The Journal of the Acoustical Society of America 53 (2), 400-408.
- Genuit, K. (1984):
Ein Modell zur Beschreibung von Aussenohrübertragungsfunktionen.
Aachen: Rheinischen-Westfälischen Technischen Hochschule, Fakultät für Elektrotechnik,
Dissertaion

- Getty, R., Foust, H.L., Presley, E.T., Miller, M.E. (1956):
Macroscopic anatomy of the ear of the dog.
American Journal of Veterinary Research 62, 364-375.
- Grützmacher, E. (1962):
Die Anatomie des äußeren Gehörganges im Hinblick auf die Otitis-Operation.
Berlin: Humboldt- Universität, Fachbereich Veterinärmedizin, Dissertation
- Guppy, A., Coles, R.B. (1988):
Acoustical and neural aspects of hearing in the Australian gleaning bats, *Macroderma gigas* and *Nyctophilus gouldi*.
Journal of Comparative Physiology A 162, 653-668.
- Harari, J., Moore, M., Dupuis, J. (1992):
Bilateral vertical canal resection to correct atresia of the external acoustic meatus in a dog.
Canine Practice 17 (4), 9-12.
- Harrison, J.M., Downey, P. (1970):
Intensity changes at the ear as a function of the azimuth of a tone source: A comparative study.
The Journal of the Acoustical Society of America 47, 1509-1518.
- Hebrank, J., Wright, D. (1974a):
Are two ears necessary for localization of sound source on the median plane?
The Journal of the Acoustical Society of America 56 (3), 935-938.
- Hebrank, J., Wright, D. (1974b):
Spectral cues used in the localization of sound source on the median plane.
The Journal of the Acoustical Society of America 56 (6), 1829-1834.
- Heffner, H.E. (1983):
Hearing in large and small dogs: Absolute thresholds and size of the tympanic membrane.
Behavioral Neuroscience 97 (2), 310-318.
- Heffner, R.S., Heffner, H. E., Stichmann, N. (1982):
Role of the elephant pinna in sound localization.
Animal Behavior 30 (2), 628-629.
- Heffner, R.S., Heffner, H. E. (1992):
Evolution of sound localization in mammals.
In: Webster, D.B., Fay, R.R., Popper, A.N. (ed): *The evolutionary biology of hearing*.
New York: Springer.
- Heffner, R.S., Heffner, H.E., Koay, G. (1995):
Sound localization in chinchillas. II. Front/back and vertical localization.
Hearing Research 88, 190-198.
- Heffner, R.S., Koay, G., Heffner, H.E. (1996):
Sound localization in chinchillas III: Effect of pinna removal.
Hearing Research 99, 13-21.

- Herre, W. (1979):
Bemerkungen zur Evolution von „Sprache“ bei Säugetieren. Zur Variabilität innerartlicher Kommunikation bei Caniden.
Zeitschrift für zoologischer Systematik und Evolutionsforschung 17, 151-173
- Hill, R.W., Christian, D.P., Veghte, J.H. (1980):
Pinna temperature in exercising jackrabbits, *Lepus Californicus*.
Journal of Mammalogy 61 (1), 30-38.
- Huang, A.Y., May, B.J. (1996a):
Sound orientation behavior in cats. II. Mid-frequency spectral cues for sound localization.
The Journal of the Acoustical Society of America 100 (2), 1070-1080.
- Huang, A.Y., May, B.J. (1996b):
Spectral cues for sound localizations in cats: Effects of frequency domain on minimum audible angles in the median and horizontal planes.
The Journal of the Acoustical Society of America 100 (4), 2341-2348.
- Hudde, H., Pösselt, C. (1988):
Die Bedeutung des äußeren Ohres für das räumliche Hören beim Menschen aus der Sicht des Ingenieurwissenschaftlers.
Zeitschrift für Hals-Nasen-Ohrenwissenschaft 36, 215-220.
- Hudde, H., Schröter, J. (1980):
The equalization of artificial heads without exact replication of the eardrum impedance.
Acustica 44, 301-307.
- Kay, R., Palmer, A.C., Taylor, P.M. (1984):
Hearing in the dog as assessed by auditory brainstem evoked potentials.
The Veterinary Record 114, 81-84.
- Keller, C.H., Hartung, K., Takahashi, T.T. (1998):
Head-related transfer functions of the barn owl: Measurement and neural responses.
Hearing Research 118, 13-34
- Kiss, G., Radvanyi, Sz., Szigeti, G. (1997):
New combination for the therapy of canine otitis externa: I Microbiology of otitis externa.
Journal of Small Animal Practice 38, 51-56.
- Kleiner, M. (1978):
Problems in the design and use of "Dummy-Heads".
Acustica 41, 183-193.
- Koch, T., Berg, R. (1985):
Lehrbuch der Veterinär-Anatomie.
Jena: VEB Gustav Fischer Verlag.

König (1994):

Ohr.

In: Frewein, J., Vollmerhaus, B. (ed): Anatomie von Hund und Katze
Berlin: Blackwell Wissenschafts-Verlag.

Löhn, J. (1993):

Untersuchungen zur Lautgebung bei Pariahunden unter besonderer Berücksichtigung des
Bellens.

Berlin: Humboldt Universität, FB Biologie, Inst. Verhaltensbiol. u. Zool., Dipl.-Arbeit

Li, L., Frost, B.J. (1996):

Azimuthal sensitivity of rat pinna reflex: EMG recordings from cervicoauricular muscles.
Hearing Research 100, 192-200.

Lipman, E.A., Grassi, J.R. (1942):

Comparative auditory sensitivity of man and dog.

American Journal of Psychology 55, 84-89.

May, B.J., Huang, A.Y. (1997):

Spectral cues for sound localization in cats: A model for discharge rate representations in the
auditory nerve.

The Journal of the Acoustical Society of America 101 (5), 2705-2719.

Middlebrooks, J.C. (1999):

Individual differences in external-ear transfer functions reduced by scaling in frequency.

The Journal of the Acoustical Society of America 106 (3), 1480-1492.

Middlebrooks, J.C., Knudsen, E.I. (1987):

Changes in external ear position modify the spatial tuning of auditory units in the cat's
superior colliculus.

Journal of Neurophysiology 57 (3), 672-687.

Middlebrooks, J.C., Pettigrew, J.D. (1981):

Functional classes of neurons in primary auditory cortex of the cat distinguished by sensitivity
to sound location.

The Journal of Neuroscience 1 (1), 107-120.

Middlebrooks, J.C., Makous, J.C., Green, D.M. (1989):

Directional sensitivity of sound-pressure levels in the human ear canal.

The Journal of the Acoustical Society of America 86 (1), 89-108.

Miller, M.E., Witter, R. E. (1942):

Applied anatomy of the external ear of the dog.

Cornell Veterinary 32, 64-89.

Moore, D.R., Irvine, D.R.F. (1979):

A developmental study of the sound pressure transformation by the head of the cat.

Acta Oto-laryngologica 87, 434-440.

- Munro, K.J., Cox, C.L. (1997):
Investigation of hearing impairment in Cavalier King Charles spaniels using auditory brainstem response audiometry.
Journal of Small Animal Practice 38, 2-5.
- Musicant, A.D., Butler, R.A. (1984):
The influence of pinnae-based spectral cues on sound localization.
The Journal of the Acoustical Society of America 75 (4), 1195-1200.
- Musicant, A.D., Chan, J.C.K., Hind, J.E. (1990):
Direction-dependent spectral properties of cat external ear: New data and cross-species comparisons.
The Journal of the Acoustical Society of America 87 (2), 757-781.
- Obrist, M.K., Fenton, M.B., Eger, J.L., Schlegel, P.A. (1993):
What ears do for bats: A comparative study of pinna sound pressure transformation in chiroptera.
Journal of experimental Biologie 180, 119-152.
- Parsons, C.H., Lanyon, R.G., Schnupp, J.W.H., King, A.J. (1999):
Effects of altering spectral cues in infancy on horizontal and vertical sound localization by adult ferrets.
Journal of Neurophysiology 82 (5), 2294-2309.
- Populin, L.C., Yin, T.C.T. (1998a):
Behavioral studies of sound localization in the cat.
The Journal of Neuroscience 18 (6), 2147-2160.
- Populin, L.C., Yin, T C T. (1998b):
Pinna movements of cat during sound localization.
The Journal of Neuroscience 18 (6), 4233-4243.
- Pugh, K.E., Evans, J.M., Hendy, P.G. (1974):
Otitis externa in the dog and cat - an evaluation of a new treatment.
Journal of Small Animal Practice 15, 387-400.
- Rice, J.J., May, B.J., Spirou, G.A., Young, E.D. (1992):
Pinna-based spectral cues for sound localization in cat.
Hearing Research 58, 132-152.
- Rice, J.J., Young, E. D. et al. (1995):
Auditory-nerve encoding of pinna-based spectral cues: Rate representation of high-frequency stimuli.
The Journal of the Acoustical Society of America 97 (3), 1764-1776.
- Rodgers, C.A.P. (1981):
Pinna transformations and sound reproduction.
The Journal of Audio of the Engineering Society 29 (4), 226-234.

- Rose, W.R. (1977a):
Audiology-1: Hearing and Deafness.
Veterinary Medicine/ Small Animal Clinician 14, 281-286.
- Rose, W.R. (1977b):
Audiology-2: Pure-Tone Audiometry.
Veterinary Medicine/ Small Animal Clinician 15, 422-431.
- Rosowski, J.J. (1991):
The effects of external- and middle-ear filtering on auditory threshold and noise-induced hearing loss.
The Journal of the Acoustical Society of America 90 (1), 124-135.
- Rosowski, J.J. (1992):
Hearing in transitional mammals: Predictions from the middle ear anatomy and hearing capabilities of extant mammals.
In: Webster, D.B., Fay, R.R., Popper, A.N. (ed): The evolutionary biology of hearing.
New York: Springer-Verlag. S. 615-632.
- Rosowski, J.J. (1994):
Outer and middle ear.
In: Fay, R. R., Popper, A.N. (ed): Comparative Hearing: Mammals. 4
New York: Springer-Verlag. S. 172-247.
- Schassburger, R.M. (1993):
Vocal communication in the timber wolf, *Canis lupus*, Linnaeus. Structure, Motivation, and Ontogeny.
Berlin and Hamburg: Paul Parey Scientific Publishers.
- Schenkel, R. (1947):
Ausdruck-Studien an Wölfen - Gefangenschafts-Beobachtungen.
Behavior 1, 81-129.
- Searle, C.L., Braida, L.D., Cuddy, D.R., Davis, M.F. (1975):
Binaural pinna disparity: another auditory localization cue.
The Journal of the Acoustical Society of America 57 (2), 448-455.
- Sharma, V.D., Rhoades, H.E. (1975):
The occurrence and microbiology of otitis externa in the dog.
Journal of Small Animal Practice 16, 241-247.
- Shaw, E.A.G. (1974a):
The external ear.
In: Keidel, W.D., Neff, W.D. (ed.): Handbook of sensory psychology. Vol. 5.
Berlin-New York: Springer-Verlag. S. 455-590.
- Shaw, E.A.G. (1974b):
Transformation of sound pressure level from the free field to the eardrum in the horizontal plane.
The Journal of the Acoustical Society of America 56 (6), 1848-1974.

- Shaw, E.A.G., Teranishi, R. (1968):
Sound pressure generated in an external-ear replica and real human ears by a nearby point-source.
The Journal of the Acoustical Society of America 44, 240-249.
- Shiu, J.N., Munro, K.J., Cox, C.L. (1997):
Normative auditory brainstem response data for hearing threshold and neuro-otological diagnosis in the dog.
Journal of Small Animal Practice 38 (3), 103-107.
- Spezio, M.L., Keller, C.H., Marrocco, R.T., Takahashi, T.T. (2000):
Head-related transfer functions of the Rhesus monkey.
Hearing Research 144, 73-88.
- Steffen, F., Jaggy, A. (1998):
Taubheit und ihre Diagnose bei Hund und Katze.
Schweizer Archiv für Tierheilkunde 140 (10), 397-404.
- Stinson, M.R., Khanna, S.M. (1989):
Sound propagation in the ear canal and coupling to the eardrum, with measurements on model systems.
The Journal of the Acoustical Society of America 85 (6), 2481-2491.
- Strain, G.M. (1992):
Brainstem auditory evoked potentials in veterinary medicine.
British Veterinary Journal 148 (4), 275-278.
- Sutherland, L.C., Daigle, G.A. (1998):
Atmospheric sound propagation.
In: Crocker, M.C. (ed): Handbook of acoustics.
New York: John Wiley Sons. S. 305-329.
- Tembrock, G. (1976):
Die Lautgebung der Caniden. Eine vergleichende Untersuchung.
Leipzig: Milu 4, 1-44.
- Tembrock, G. (1996):
Akustische Kommunikation bei Säugetieren
Darmstadt: Wissenschaftliche Buchgesellschaft.
- Thurlow, W.R., Mangels, J.W., Runge, P.S. (1967):
Head movements during sound localization.
The Journal of the Acoustical Society of America 42 (2), 489-493.
- Tonndorf, J., Khanna, S.M. (1966):
Some Properties of sound transmission in the middle and outer ears of cats.
The Journal of the Acoustical Society of America 41 (2), 513-512.

- Thompson, G.C., Masterton, R.B. (1978):
Brain stem auditory pathways involved in reflexive head orientation to sound.
Journal of Neurophysiology 41 (5), 1183-1202.
- von Bismark, G., Pfeiffer, R.R. (1967):
On the sound pressure transformation from free field to eardrum of chinchilla.
The Journal of the Acoustical Society of America 42, 1156.
- White, R.A.S., Pomeroy, C.J. (1990):
Total ear canal ablation and lateral bulla osteotomy in the dog.
Journal of Small Animal Practice 31 (11), 547-553.
- Wiener, F.M., Ross, D.A. (1946):
The pressure distribution in the auditory canal in a progressive sound field.
The Journal of the Acoustical Society of America 18, 401-408.
- Wiener, F.M., Pfeiffer, R.R., Backus, A.S.N. (1966):
On the sound pressure transformation by the head and auditory meatus of the cat.
Acta oto-laryngol 61, 255-269.
- Wightman, F.L., Kistler, D.J. (1992):
The dominant role of low-frequency interaural time differences in sound localization.
The Journal of the Acoustical Society of America 91 (3), 1648-1661.
- Wright, D., Hebrank, J.H., Wilson, B. (1974):
Pinna reflections as cues for localization.
The Journal of the Acoustical Society of America 56 (3), 957-962.
- Xu, L., Middlebrooks, J.C. (2000):
Individual differences in external-ear transfer functions of cats.
The Journal of the Acoustical Society of America 107 (3), 1451-1459.